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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

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JEREMIAH REVITCH, on Behalf of Himself and all Others Similarly Situated,
 	
                                    Plaintiff,
 	
        v.
 	
CITIBANK, N.A.,
 	
                                    Defendant.
	Case No. 3:17-cv-06907-WHA
	
	DECLARATION OF JOEL D. SMITH IN SUPPORT OF PLAINTIFF'S REPLY IN SUPPORT OF MOTION FOR CLASS CERTIFICATION
	
	Date: February 14, 2019
	Time: 8 a.m.
	Court: Courtroom 12, 19th Floor

1   I, Joel D. Smith, declare as follows:

2   1.   I am an attorney at law licensed to practice in the State of California. I am a partner

3   at Bursor & Fisher, P.A., counsel of record for Plaintiff. I have personal knowledge of the facts set

4   forth in this declaration, and, if called as a witness, could and would competently testify thereto

5   under oath. I make this declaration in support of Plaintiff's Reply in Support of Motion for Class

6   Certification. I have personal knowledge of the facts set forth herein, and if called upon to do so, could

7   and would testify truthfully and competently with respect thereto.

8   2.   Attached hereto as **Exhibit 1** is a true and correct copy of excerpts of the deposition

9   of Citibank's expert witness Margaret Daley, taken in this matter on January 24, 2019. The document

10 is filed under seal.

11   3.   .Attached hereto as **Exhibit 2** is a true and correct copy of excerpts of the deposition

12 of Plaintiff's expert witness Randall Snyder, taken in this matter on December 23, 2018. The

13 document is filed under seal

14   4.   Attached hereto as **Exhibit 3** is a true and correct copy of excerpts of the deposition

15 of Plaintiff's expert witness Colin B. Weir, taken in this matter on December 28, 2018. The document

16 is filed under seal.

17   5.   Attached hereto as **Exhibit 4** is a true and correct copy of the February 1, 2018 Reply

18 Declaration of Randall A. Snyder. Portions of the document is filed under seal.

19   6.   Attached hereto as **Exhibit 5** is a true and correct copy of the February 1, 2018 Reply

20 Declaration of Colin B. Weir. Portions of the document is filed under seal.

21   7.   Attached hereto as **Exhibit 6** is a true and correct of exhibit 8 attached to the Expert

22 Report of Margaret Daley (Doc. No. 110-8).

23   8.   Attached hereto as **Exhibit 7** is a true and correct copy of exhibit 9 attached to the

24 Expert Report of Margaret Daley (Doc. No. 110-8).

25   9.   Attached hereto as **Exhibit 8** is a true and correct copy of exhibit 11 attached to the

26 Expert Report of Margaret Daley (Doc. No. 110-8).

27

28

1   I declare under penalty of perjury that the foregoing is true and correct. Executed on

2   January 25, 2019, in Walnut Creek, California,

3   */s/ Joel D. Smith*
                                                                      Joel D. Smith

EXHIBIT 1

CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

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 1              UNITED STATES DISTRICT COURT
                NORTHERN DISTRICT OF CALIFORNIA
 2

    JEREMIAH REVITCH, on         )
 3  Behalf of Himself and All    )
    Others Similarly Situated,   )
 4                               )
                                 )  Case No.
 5         Plaintiffs,           )  3:17-cv-06907-WHA
                                 )
 6     vs.                       )
                                 )
 7  CITIBANK, N.A.,              )
                                 )
 8         Defendant.            )
 9
10         The videotaped deposition of MARGARET
11  DALEY, called for examination, taken pursuant to
12  the Federal Rules of Civil Procedure of the United
13  States District Courts pertaining to the taking of
14  depositions, taken before JANET L. ROBBINS,
15  CSR No. 84-2207, Certified Shorthand Reporter of
16  the State of Illinois, at One North Franklin,
17  Suite 3000, Chicago, Illinois, on
18  January 24, 2019, at 8:58 a.m.
19
20     ***THIS DEPOSITION CONTAINS CONFIDENTIAL
21   INFORMATION PURSUANT TO THE PROTECTIVE ORDER***
22
23
24  PAGES 1 - 291
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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

1	Q. Okay. Do you understand or agree that	09:10:23
2	providing inaccurate information to the Court is	09:10:32
3	not helpful?	09:10:35
4	A. Yes.	09:10:36
5	Q. Is there anything in your report, the	09:10:37
6	exhibits to that report, or your opinions that you	09:10:40
7	believe to be inaccurate?	09:10:42
8	A. No.	09:10:44
9	(Daley Exhibit 58 was marked for	09:11:18
10	identification.)	09:11:29
11	BY MR. SMITH:	09:11:29
12	Q. Ms. Daley, you should have a document	09:11:36
13	in front of you that has been marked Exhibit 58.	09:11:38
14	Do you see that document?	09:11:42
15	A. Yes.	09:11:43
16	Q. What is the document that's been marked	09:11:44
17	as Exhibit 58?	09:11:46
18	A. It's an article that I wrote.	09:11:47
19	Q. And was it your intention to provide	09:11:50
20	truthful information in the article that's been	09:11:59
21	marked as Exhibit 58?	09:12:01
22	A. Yes.	09:12:02
23	Q. I want to direct your attention to the	09:12:02
24	bottom of Page 2 of Exhibit 58.	09:12:13

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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

1	Is it a true statement that cellular	09:12:19
2	telephone numbers turn over at a substantial rate?	09:12:25
3	A. Yes.	09:12:30
4	Q. Is it a true statement that	09:12:31
5	approximately 1,000 numbers are reassigned by	09:12:35
6	wireless carriers every day?	09:12:39
7	A. I think you misspoke.	09:12:51
8	THE WITNESS: Can you reread his --	09:12:54
9	BY MR. SMITH:	
10	Q. Let's -- I'm looking at the bottom	09:12:55
11	paragraph at the bottom of Page 2 of Exhibit 58.	09:12:59
12	You have a sentence there that starts "The FCC,"	09:13:05
13	and then there's a hyperlink, "in 2017."	09:13:08
14	Do you see that?	09:13:11
15	A. Yes, but I think you said 1,000 numbers	09:13:11
16	and I believe it's 100,000.	09:13:13
17	Q. Thank you -- thank you for that.	09:13:15
18	100,000 numbers are reassigned by	09:13:17
19	wireless carriers every day; is that a true	09:13:20
20	statement?	09:13:23
21	A. I believe it is, if the FCC -- if you	09:13:23
22	have the FCC report.	09:13:24
23	Q. Okay.	09:13:26
24	A. I mean, the true statement is that I	09:13:26

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1	believe 35 million numbers are disconnected and	09:13:29
2	aged.	09:13:36
3	Q. Okay.	09:13:36
4	A. I mean, this is information that I	09:13:36
5	received -- that I looked -- that I sourced from	09:13:37
6	somewhere else.	09:13:41
7	Q. All right. Further down that paragraph	09:13:41
8	you say, "This churn rate is even higher for	09:13:45
9	cellular number owners experiencing financial	09:13:48
10	distress."	09:13:52
11	Do you see that?	09:13:53
12	A. Yes.	09:13:53
13	Q. Did I read that one correctly?	09:13:53
14	A. Uh-huh.	09:13:54
15	Q. Okay. And are you aware of any	09:13:55
16	information that suggests that sentence is	09:13:56
17	incorrect?	09:13:59
18	A. No.	09:14:00
19	Q. Have you looked at the call logs in	09:14:00
20	this case?	09:14:05
21	A. Yes.	09:14:07
22	Q. Okay. Do you have any understanding	09:14:08
23	about the volume of calls made in the last four	09:14:11
24	years?	09:14:14

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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

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 1        A.    Yes.                                    09:14:14

 2        Q.    What is your understanding?             09:14:14

 3        A.    It's quite substantial.  It's a large  09:14:16

 4   bank.                                              09:14:22

 5        Q.    Okay.  If --                            09:14:23

 6              THE COURT REPORTER:  It's a large?

 7              THE WITNESS:  It's a large bank.

 8              THE COURT REPORTER:  Thanks.

 9   BY MR. SMITH:

10        Q.    If Mr. Weir were to testify at trial    09:14:24

11   that the call log showed upward of 70 million call 09:14:26

12   detail records, would you have a basis to dispute  09:14:34

13   that?                                              09:14:36

14              THE WITNESS:  Can read that over?       09:14:37

15              MR. SMITH:  Do you mind reading the     09:14:38

16        question back.                                09:14:39

17                   (The reporter read the record as   09:14:49

18                    requested.)

19              THE WITNESS:  I believe that's not as   09:14:51

20        many.  I believe that's wrong.               09:14:54

21   BY MR. SMITH:                                      09:14:55

22        Q.    What is the basis for that belief?      09:14:55

23        A.    That I -- we -- we took the entire      09:14:57

24   amount of the calls and -- that was produced and  09:15:00
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1	it was more than 70 million.	09:15:04
2	Q. Oh, you think the number is higher than	09:15:06
3	70 million?	09:15:08
4	A. Yes, I do.	09:15:09
5	Q. Okay. Do you have any sense of how	09:15:09
6	much higher?	09:15:12
7	A. I just know that it's substantially	09:15:12
8	more than 70 million.	09:15:14
9	Q. In the billions?	09:15:17
10	A. Potentially.	09:15:18
11	Q. Okay.	09:15:19
12	A. I don't know where Mr. Weir would get	09:15:22
13	70 million. But we may be talking about different	09:15:24
14	data sources, so it's important to understand what	09:15:27
15	data source he's looking at to get to the	09:15:31
16	70 million.	09:15:33
17	Q. I see. Okay.	09:15:34
18	A. I don't think that he ever uploaded the	09:15:35
19	entire database, but I may be wrong about that.	09:15:37
20	Q. Well, let's just assume hypothetically	09:15:43
21	that the call is 70 million or a billion,	09:15:47
22	whichever the case may be.	09:15:51
23	Is it your opinion that Citibank called	09:15:53
24	or reached the intended recipient of the call	09:15:56

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1	100 percent of the time?	09:15:59
2	A. I have no way of knowing that --	09:16:01
3	Q. Okay.	09:16:01
4	A. -- except Mr. Revitch apparently got a	09:16:03
5	wrong number call.	09:16:08
6	Q. Are you offering the opinion that	09:16:09
7	Citibank never makes wrong number calls?	09:16:11
8	A. No.	09:16:14
9	Q. What's your best estimate of the number	09:16:14
10	of calls placed by Citibank that reached the	09:16:18
11	intended recipient?	09:16:21
12	A. I have none.	09:16:24
13	Q. Okay. You wouldn't know if it's more	09:16:26
14	than 50 or less than 50?	09:16:29
15	A. I have -- that was outside the scope of	09:16:30
16	my work.	09:16:32
17	Q. Okay. And you wouldn't know if it's	09:16:32
18	more than 10 percent or less than 10 percent?	09:16:33
19	A. Again, outside the scope of my work.	09:16:35
20	But my work would tend to show you that it's	09:16:36
21	impossible to make that determination without	09:16:38
22	doing an account-by-account review.	09:16:41
23	Q. Okay. Do you have any reason to	09:16:44
24	question or doubt that Citibank made more than	09:16:44

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1	40 wrong number calls in the course of four years?	09:16:48
2	A. I don't have an opinion on that.	09:16:51
3	Q. Okay.	09:16:54
4	A. I didn't -- I can state that none of	09:16:59
5	the records that were produced and reviewed by --	09:17:03
6	by Mr. Weir as his class, there aren't 40 in that	09:17:10
7	proposed class. And he did a pull of 20,000. So	09:17:14
8	there's been -- there has not been produced in	09:17:18
9	this record evidence of 40 wrong number calls.	09:17:22
10	Q. Okay. And what is the basis for that	09:17:26
11	statement?	09:17:31
12	A. All of the work that I did that's	09:17:32
13	represented in my report.	09:17:33
14	Q. Okay. Are you offering any opinion	09:17:34
15	about how many people might have received wrong	09:17:36
16	number calls?	09:17:39
17	A. No.	09:17:40
18	Q. Are you offering any opinion that	09:17:40
19	people can consent to receive wrong number calls?	09:17:48
20	A. Can you repeat that?	09:17:51
21	Q. Sure. Is it your opinion that it is	09:17:54
22	possible for people to consent to receive wrong	09:17:57
23	number calls intended for someone else?	09:18:01
24	A. Well, I don't know what -- what your	09:18:03

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1	definition of a wrong number call is at that	09:18:04
2	point.	09:18:08
3	Q. Intended for someone else.	09:18:08
4	A. So your question is: Is it -- is it	09:18:11
5	possible for me to consent to receive a call that	09:18:12
6	was intended for someone other than myself?	09:18:17
7	Q. Are you offering an opinion on that	09:18:20
8	subject?	09:18:22
9	A. Am I offering an opinion on that?	09:18:22
10	I think "consent" is a legal opinion	09:18:25
11	and something that -- you know, whether or not	09:18:27
12	someone consents is -- is a -- that's a	09:18:30
13	definition, it's a legal issue that would be up to	09:18:32
14	the Judge.	09:18:38
15	But from a personal perspective, I	09:18:38
16	certainly can consent to receive calls from my	09:18:40
17	husband. If we're both on a -- on an -- accounts	09:18:44
18	or I'm identified as a contact and I know that	09:18:48
19	I've been identified as a contact and I pick up	09:18:53
20	his phone instead of somebody else, then sure.	09:18:56
21	Q. Okay. And is that an opinion that	09:18:58
22	Citibank has asked you to put forward in this	09:19:00
23	case?	09:19:04
24	A. Well, there are -- there's certainly	09:19:04

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1	instances of consent or apparent consent that are	09:19:08
2	addressed in my report on an anecdotal basis,	09:19:15
3	which has to do with the review that I did of the	09:19:19
4	176 alleged class members that were identified by	09:19:21
5	Mr. Weir.	09:19:25
6	And so to the extent that I reviewed	09:19:26
7	the account records and was able to identify	09:19:32
8	language within the account records or activity	09:19:35
9	within the account records or aspects of the	09:19:38
10	account records which would indicate the consent	09:19:44
11	was potentially there, the answer is yes.	09:19:47
12	However, I certainly have not been retained to say	09:19:50
13	that any individual consented in any particular	09:19:53
14	situation for any particular call.	09:19:58
15	Q. Okay. Are you offering an opinion that	09:20:01
16	Mr. Revitch consented to receive calls in this	09:20:08
17	case?	09:20:12
18	A. No.	09:20:12
19	Q. Are you offering any opinions regarding	09:20:13
20	Citibank's arbitration agreement?	09:20:18
21	A. No.	09:20:21
22	Q. Are you offering any opinions regarding	09:20:21
23	the subject of whether or not Citibank knowingly	09:20:26
24	or willingly violated the TCPA?	09:20:30

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1	A. No.	09:20:33
2	Q. Are you offering any opinions on the	09:20:34
3	subject of calculating the amount of statutory	09:20:40
4	damages at issue in this case?	09:20:43
5	A. Well, I'm a data analytics expert, and	09:20:46
6	I have certainly been retained to review the data.	09:20:55
7	And it's quite possible that at some point they	09:20:59
8	may come back to me and say "do this calculation."	09:21:03
9	My report certainly does not have	09:21:08
10	anything to that effect because Mr. Weir was	09:21:11
11	unable to identify, in my opinion, any class	09:21:14
12	members, which would mean that, at least based on	09:21:18
13	the sample that he did, there are no damages,	09:21:23
14	there are none. But I wasn't asked to give a	09:21:26
15	damages calculation, nor would I.	09:21:29
16	Q. Are you offering any opinions about how	09:21:33
17	Citibank's Aspect dialing system works?	09:21:38
18	A. No. Mr. Kalat is providing that.	09:21:43
19	Q. Do you view yourself as an expert in	09:21:45
20	the area of probability?	09:21:56
21	A. You mean from a statistical standpoint?	09:21:59
22	Q. (Nodding head.)	
23	A. No. I'm a -- I'm familiar and fluent	09:22:03
24	with statistics, and I'm very familiar with the	09:22:06

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1	probability statistics or probability of ownership	09:22:09
2	scoring that is produced by various data vendors	09:22:15
3	relating to the data that they produce. I've used	09:22:21
4	that. I don't calculate it, for sure, nor do I	09:22:23
5	know how they calculate it because they don't	09:22:28
6	produce it.	09:22:32
7	And I certainly use statistics in my --	09:22:32
8	in my work, but I -- I am not a statistician and I	09:22:35
9	don't claim to be an expert in statistics.	09:22:39
10	Q. Okay. You've never taught any courses	09:22:42
11	in statistics?	09:22:45
12	A. No.	09:22:46
13	Q. You've never wrote any textbooks on the	09:22:46
14	subject?	09:22:50
15	A. No.	09:22:50
16	Q. Okay. When you speak about	09:22:50
17	probabilities, do you prefer to refer to them as	09:22:51
18	percentages or decimals?	09:22:57
19	For instance, if we're talking about a	09:23:00
20	probability of 50/50, would you -- do you prefer	09:23:02
21	to say 50 percent or .5?	09:23:05
22	A. I don't have a preference.	09:23:08
23	Q. Okay. Do you have any understanding	09:23:09
24	about whether or not the probability of something	09:23:12

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1	can exceed 100 percent?	09:23:16
2	A. I don't have an opinion on that.	09:23:18
3	Q. Okay. All right.	09:23:19
4	A. And I'm not sure I understand the	09:23:26
5	question, honestly.	09:23:28
6	Q. Okay. All right. Well, just by way of	09:23:28
7	example, is it possible that the probability of	09:23:30
8	raining on a given day can be 125 percent?	09:23:36
9	A. I -- I don't know.	09:23:43
10	Q. Okay.	09:23:47
11	A. I'm not a weatherman.	09:23:48
12	Q. Well, let's stick with the weather a	09:23:50
13	little bit.	09:24:06
14	On any given day it can be sunny,	09:24:07
15	rainy, foggy, snowy, whatever, right? You have a	09:24:10
16	number of possibilities that you can choose from,	09:24:12
17	right?	09:24:15
18	A. Yes.	09:24:15
19	Q. Okay. Assuming that you've got all the	09:24:16
20	possible outcomes in terms of weather, can the	09:24:25
21	probabilities be more than 100 of any particular	09:24:28
22	outcome?	09:24:35
23	A. Of any particular outcome?	09:24:35
24	Q. Uh-huh.	09:24:38

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1	A. So you're talking about multiple inputs	09:24:39
2	coming in and scoring each one by their unique	09:24:42
3	probability --	09:24:46
4	Q. Yes.	09:24:47
5	A. -- and then scoring them against each	09:24:47
6	other?	09:24:48
7	Q. Yes.	09:24:48
8	A. So yes. The answer's yes.	09:24:49
9	Q. It can be more than 100?	09:24:50
10	A. Yes.	09:24:53
11	Q. Okay. All right. And why do you say	09:24:53
12	that?	09:24:54
13	A. Well, my understanding would be that	09:24:54
14	when you're scoring them against each other -- I	09:25:00
15	mean, if you've got -- this is not my area. I'm	09:25:03
16	not pretending to be --	09:25:08
17	Q. Okay.	09:25:10
18	A. -- a probability expert or a	09:25:11
19	statistical expert.	09:25:12
20	But when you've got multiple inputs,	09:25:14
21	you're essentially working on an algorithm.	09:25:18
22	Q. Okay. Anything more to say about that	09:25:23
23	subject?	09:25:27
24	A. Not really.	09:25:27

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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

1	Q. All right. Are you familiar with	09:25:27
2	software called Stata --	09:25:29
3	A. Yes.	09:25:31
4	Q. -- or Stata?	09:25:31
5	A. Uh-huh.	09:25:32
6	Q. Have you ever used Stata prior to this	09:25:33
7	litigation?	09:25:36
8	A. No.	09:25:36
9	Q. And you don't have a license to use it	09:25:37
10	then, correct?	09:25:41
11	A. My firm does.	09:25:41
12	Q. Okay. Do you believe that the Stata	09:25:42
13	software is reliable?	09:25:49
14	A. I don't have an opinion on it one way	09:25:51
15	or the other.	09:25:53
16	Q. Have you ever heard anyone in your firm	09:25:53
17	say they think that the firm should stop using	09:25:56
18	Stata because it's unreliable?	09:25:59
19	A. That wouldn't affect whether or not I	09:26:01
20	had an opinion upon whether it was reliable.	09:26:05
21	In order for me to personally have an	09:26:08
22	on its reliability, I would have to personally use	09:26:11
23	it and observe it and to make determinations on	09:26:13
24	how it works.	09:26:16

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1	My firm uses Stata because other people	09:26:17
2	within my firm want to use it. And, therefore,	09:26:19
3	they have an opinion on its reliability or its use	09:26:22
4	for a particular purpose.	09:26:26
5	And we also have licenses for many	09:26:28
6	different types of programs, data programs,	09:26:31
7	because our clients use them. And, therefore, for	09:26:35
8	us to work on our client's data in an efficient	09:26:39
9	way, we use the same software that they do.	09:26:41
10	I have no opinion on it. I'm not an	09:26:44
11	expert in Stata. And I did not personally do the	09:26:46
12	work on Stata in this matter. I used somebody in	09:26:48
13	our firm to do that at my supervision because they	09:26:53
14	were fluent in it.	09:26:57
15	Q. Okay. Have any of your clients who use	09:26:58
16	Stata told you they believe it's unreliable?	09:27:01
17	A. I don't have any clients that use it.	09:27:05
18	Q. Okay. Has anyone at your firm told you	09:27:06
19	they stopped using Stata because they decided it	09:27:10
20	was unreliable?	09:27:13
21	A. No.	09:27:14
22	Q. After Mr. Weir applied the methodology	09:27:14
23	that's described in his report, he came up with a	09:27:31
24	list of 176 telephone numbers.	09:27:36

Page 28

1	thoughts?	10:14:14
2	A. That it's exceptionally hard to try and	10:14:14
3	identify wrong number call recipients for many of	10:14:18
4	the reasons that are outlined in my report here.	10:14:26
5	A lot of it is driven by the business records that	10:14:30
6	are maintained by the individual companies.	10:14:33
7	And those are just extremely complex,	10:14:39
8	and each one is very different for each of the	10:14:42
9	cases that I've worked on. Even though they're	10:14:44
10	similar financial institutions and that they're	10:14:47
11	collecting on similar types of debt, they have	10:14:51
12	incredibly different business systems.	10:14:55
13	Q. And have you ever thought about ways to	10:14:57
14	address those difficulties if you wanted to	10:14:59
15	certify a wrong number class?	10:15:01
16	A. No, I haven't been asked.	10:15:02
17	Q. Okay.	10:15:05
18	A. And I would add that the current data	10:15:10
19	that exists to try and identi- -- to associate	10:15:12
20	people with telephone numbers, that's really the	10:15:16
21	biggest problem, is identifying people with the	10:15:20
22	telephone numbers. It's very unreliable.	10:15:25
23	Q. When was the last time you researched	10:15:26
24	or looked into the current state of technology or	10:15:29

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1	services that are available as of 2018, let's say,	10:15:32
2	that might facilitate identifying people,	10:15:36
3	associating people with phone numbers?	10:15:42
4	A. Well, we do it all -- we do it as a	10:15:44
5	general course of business. We're looking at the	10:15:45
6	TLO and LexisNexis data as well as other types of	10:15:47
7	data vendors that sell cellular lookup services.	10:15:52
8	I issued a number of reports last year and we	10:15:57
9	tested the data.	10:15:59
10	Q. Okay. A number of reports in	10:16:03
11	connection with litigation?	10:16:04
12	A. Uh-huh.	10:16:05
13	Q. I see. Okay.	10:16:06
14	Have you ever testified as a witness in	10:16:10
15	trial before?	10:16:12
16	A. Preliminary injunction.	10:16:13
17	Q. Okay. And was that as a fact witness	10:16:16
18	or as an expert witness?	10:16:20
19	A. Expert.	10:16:21
20	Q. Have you ever testified as a nonexpert	10:16:22
21	in trial?	10:16:28
22	A. I've testified at hearings. I don't	10:16:29
23	know what "trial" means, you know, if you're	10:16:42
24	talking about civil litigation going to trial.	10:16:43

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1	involved a putative class of people who received	10:21:23
2	wrong number calls?	10:21:26
3	A. That's correct.	10:21:27
4	Q. And did the plaintiffs' expert in	10:21:29
5	Johnson v. Navient propose using LexisNexis and	10:21:32
6	TransUnion to find class members?	10:21:37
7	A. Yes.	10:21:38
8	Q. And in the Johnson v. Navient case, did	10:21:39
9	you offer the opinion that the methodology used by	10:21:42
10	the plaintiffs' expert in that case did not find	10:21:45
11	the named plaintiff?	10:21:48
12	A. That's correct.	10:21:50
13	Q. And you offer a similar opinion in this	10:21:53
14	case, correct?	10:21:55
15	A. Yes, but for different reasons.	10:21:56
16	Q. In the Johnson v. Navient case, did you	10:21:57
17	opine that the cellular reverse lookup services	10:22:05
18	like TransUnion and LexisNexis are unreliable?	10:22:08
19	(Witness viewed said document.)	
20	THE WITNESS: I believe in that case --	10:22:59
21	I'm just looking through. I'm trying to	10:23:02
22	refresh my recollection here.	10:23:05
23	I think the idea that they're	10:24:05
24	unreliable is baked into this report, but I	10:24:08

1	don't have a unique opinion that	10:24:10
2	identifies -- that sets out that they are	10:24:14
3	unreliable on their face.	10:24:16
4	I'm looking at paragraph 5. It	10:24:18
5	says, Should she find any name associated	10:24:23
6	with a cellular telephone number for the	10:24:26
7	relevant time frame, she declares them a	10:24:27
8	class member, and presumably plaintiff's	10:24:30
9	class [sic] will seek damages, despite having	
10	no proof that they ever received a single	10:24:34
11	wrong telephone call.	10:24:35
12	I'm still reading.	10:24:42
13	BY MR. SMITH:	
14	Q. Okay.	10:24:46
15	A. I also say here that the data brokers	10:24:46
16	rely on undisclosed source, the accuracy of which	10:24:50
17	varies widely. So the reliability is called into	10:24:54
18	question, in my opinion.	10:24:58
19	Q. And I just want to direct your	10:25:00
20	attention to paragraph 75, which is on Page 30.	10:25:02
21	And you can find the page numbers at the very top	10:25:06
22	on the page.	10:25:11
23	You'll see a header there that says	10:25:18
24	"Cellular Telephone Reverse Lookup Services Cannot	10:25:21

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1	Identify Who Received a Wrong-Number Called."	10:25:24
2	Do you see that?	10:25:27
3	A. Uh-huh.	10:25:27
4	Q. Did I read that correctly?	10:25:27
5	A. Yes.	10:25:29
6	Q. And is that a fair summary of at least	10:25:29
7	one of the opinions that you set forth in the	10:25:33
8	Johnson v. Navient case?	10:25:38
9	A. Well, it's a verbatim recitation of one	10:25:40
10	of the headers, so I assume it's fair.	10:25:42
11	Q. Okay. All right. Are you offering a	10:25:48
12	similar opinion in this case?	10:25:52
13	A. I would say so.	10:25:53
14	Q. Okay. And do you recall in the	10:25:57
15	Johnson v. Navient case explaining that LexisNexis	10:26:08
16	disclaims the reliability of its telephone lookup	10:26:15
17	service?	10:26:17
18	A. Say it again, please.	10:26:17
19	Q. Do you recall if in the Johnson v.	10:26:18
20	Navient case, as part of your opinions offered in	10:26:20
21	that case, you explain that LexisNexis has a	10:26:24
22	disclaimer regarding the reliability of its	10:26:29
23	service or accuracy of its service?	10:26:33
24	A. I'd have to look if that particular	10:26:35

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1	Q. -- I mean Berkeley Research Group?	10:27:48
2	A. Uh-huh.	10:27:50
3	Q. Okay. And you've worked for or with	10:27:50
4	BRG since 2015?	10:27:54
5	A. Correct.	10:27:58
6	Q. Since joining BRG in 2015, have you	10:27:58
7	ever personally used TransUnion's TLOxp service,	10:28:00
8	not counting any time where you may have directed	10:28:06
9	someone else to do it, but, I mean, you	10:28:10
10	personally?	10:28:13
11	A. Sure, all the time.	10:28:13
12	Q. All the time. Okay.	10:28:14
13	A. Did it yesterday.	10:28:16
14	Q. Was that in connection with this case	10:28:16
15	or another case?	10:28:18
16	A. Just in general.	10:28:19
17	Q. Okay. How frequently? Once a week?	10:28:20
18	Twice a week? Every day?	10:28:23
19	A. It -- there isn't an average. It	10:28:25
20	depends upon the need. So I would just say more	10:28:29
21	often than not I'm directing other people to pull	10:28:36
22	something in particular and they send the report	10:28:38
23	to me, but I personally use it maybe once a month.	10:28:40
24	Q. Okay. Prior to working at BRG, you	10:28:48

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1	results of your test on Lexis to anyone for	10:40:41
2	independent peer review?	10:40:47
3	A. No.	10:40:48
4	Q. Did you ever ask anyone outside of BRG	10:40:49
5	to try and do the tests and see if they got the	10:40:57
6	same results?	10:40:59
7	A. No.	10:41:00
8	Q. In your report, you describe checking	10:41:01
9	TLO reports for yourself and Mr. Weir, is that	10:41:09
10	correct?	10:41:14
11	A. Correct.	10:41:14
12	Q. Okay. Is that the only test of TLO	10:41:14
13	that you describe in your report?	10:41:18
14	A. I guess I'm going to need to know what	10:41:20
15	you mean by "test," because I talk quite a bit	10:41:32
16	about the TLO results and the first seen and the	10:41:37
17	last seen and the probability and so forth, so...	10:41:40
18	I mean, the report speaks for itself.	10:41:44
19	Q. Okay. Have you ever tried to do,	10:41:48
20	independent of any specific litigation, a test	10:41:50
21	with respect to TransUnion data similar or akin to	10:41:53
22	what you did with Lexis in 2016?	10:41:57
23	A. No, we have not.	10:42:00
24	Q. Are you aware of any other independent	10:42:01

1	testing of the TLOxp service?	10:42:10
2	A. No.	10:42:14
3	Q. Do you believe you used the TLOxp for a	10:42:14
4	permissible purpose when you ran a report on	10:42:25
5	Mr. Weir?	10:42:29
6	A. Yes.	10:42:29
7	Q. And why is that?	10:42:29
8	A. Because it's part of the litigation,	10:42:30
9	and I'm also a private detective, licensed.	10:42:34
10	Q. Any other reason?	10:42:40
11	A. He put it at issue, the reliability of	10:42:41
12	it. So I think based on his report, it was part	10:42:50
13	of the case.	10:42:54
14	Q. Did you run any other TLOxp reports in	10:42:55
15	connection with this case, apart the one -- for	10:43:06
16	the one that you ran on yourself and on Mr. Weir?	10:43:08
17	A. Can you repeat that?	10:43:12
18	Q. Did you run any other TLOxp reports,	10:43:14
19	apart from the one that you described doing for	10:43:17
20	yourself and the one you described doing for	10:43:20
21	Mr. Weir?	10:43:23
22	A. As part of this litigation?	10:43:23
23	Q. Uh-huh.	10:43:24
24	A. I don't think so. We would have run	10:43:25

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1	it for. And then, it was only then, that the risk	10:44:43
2	serv- -- the risk and in-house gave me permission.	10:44:47
3	So they were very well aware of what I was doing.	10:44:49
4	Q. Are you familiar with a company called	10:44:54
5	Neustar?	10:45:02
6	A. Yes.	10:45:02
7	Q. And do you have any information about	10:45:03
8	whether or not Citibank uses Neustar to help	10:45:06
9	Citibank avoid making calls to phone numbers that	10:45:12
10	had been reassigned?	10:45:17
11	A. My understanding is that they check the	10:45:19
12	Neustar data to determine whether or not numbers	10:45:21
13	may have been reassigned. I think there's a	10:45:27
14	probability of ownership score, and that comes	10:45:30
15	into play and is part of their decision-making and	10:45:35
16	part of their compliance policy and practice	10:45:38
17	regarding what numbers they're going to call.	10:45:42
18	Q. Do you have any criticisms of	10:45:47
19	Citibank's use of Neustar?	10:45:50
20	A. Well, I think as a bank that's making	10:45:52
21	calls that are potentially subject to the TCPA,	10:45:56
22	it's good that they're trying -- using the best --	10:46:00
23	trying the best they can to identify reassigned	10:46:03
24	numbers.	10:46:07

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1	A. Uh-huh.	10:53:11
2	Q. -- 2017, is that correct?	10:53:12
3	A. That's what it says.	10:53:13
4	Q. Okay. And did you look at the account	10:53:15
5	level notes associated with this number?	10:53:17
6	A. Yes.	10:53:18
7	Q. And is that how you were able to	10:53:19
8	determine that on July 19, 2017 a Citibank agent	10:53:22
9	had changed the Phone Indicator Code to a bad	10:53:31
10	number?	10:53:38
11	A. Yes.	10:53:38
12	Q. I want you to assume that Citibank has	10:53:39
13	taken the position in this case that prior to	10:53:54
14	July 19th, it thought it had consent to call	10:53:57
15	Mr. Revitch's number.	10:54:02
16	A. Uh-huh.	10:54:03
17	Q. Have you seen anything to contradict	10:54:03
18	that?	10:54:06
19	A. I'd have to look at the dates on the	10:54:07
20	account records, because I recall that there were	10:54:12
21	conversations where Mr. Revitch said "stop calling	10:54:18
22	me," and he was called again because there was an	10:54:22
23	error by the customer service agent where it	10:54:24
24	appears that she should have called it a bad	10:54:30

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1	number and didn't.	10:54:33
2	Q. Okay.	10:54:35
3	A. And I don't recall the precise dates.	10:54:36
4	It's in the account notes when he made that	10:54:38
5	objection.	10:54:40
6	So there was a -- an error by the	10:54:41
7	customer service agent that was rectified by Pearl	10:54:45
8	Baca because she's the one that changed the	10:54:50
9	indicator data to bad. That's when it happened.	10:54:56
10	Q. Do you recall what the phone indicator	10:54:58
11	data was for Mr. Revitch's number prior to	10:55:00
12	July 19, 2017?	10:55:05
13	A. I'd be guessing. I know what it was	10:55:05
14	afterwards.	10:55:10
15	Q. Okay. There was --	10:55:10
16	A. It's in the account. It's totally in	10:55:14
17	the account data.	10:55:15
18	Q. Okay. Some kind of consent record	10:55:16
19	prior to July 19, 2017?	10:55:17
20	A. It will say in the account records	10:55:19
21	changes J to B or N to V. I mean, it tells you	10:55:22
22	what it was and what it is, and it's in the	10:55:27
23	capital letters when it happens.	10:55:30
24	Q. And do you know if prior to July 19,	10:55:32

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1	THE VIDEOGRAPHER: This is the end of	10:57:56
2	DVD No. 1. The time is 10:57 a.m. We are	10:57:58
3	off the record.	10:58:05
4	(Whereupon, a recess was had	11:06:36
5	from 10:57 a.m. to 11:06 a.m.)	11:06:38
6	THE VIDEOGRAPHER: This is the	11:06:38
7	beginning of DVD No. 2. The time is	11:06:44
8	11:06 a.m. We are back on the record.	11:06:48
9	BY MR. SMITH:	11:06:51
10	Q. Ms. Daley, on paragraph 21, you were	11:06:51
11	just describing a moment ago a variety of consent	11:06:56
12	codes that are --	11:06:59
13	A. Right.	11:06:59
14	Q. -- that Citibank uses?	11:07:00
15	A. Uh-huh.	11:07:01
16	Q. And can these consent codes generally	11:07:01
17	be found in the account level notes that you were	11:07:08
18	also describing?	11:07:12
19	A. Yes.	11:07:15
20	Q. Okay. And do you know if the codes in	11:07:17
21	the account level documents that were associated	11:07:18
22	with Mr. Revitch's phone number were accurate	11:07:22
23	prior to July 19, 2017?	11:07:26
24	A. By "accurate," what do you mean?	11:07:29

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1	Q. Did they indicate consent, lack of	11:07:34
2	consent, wrong number?	11:07:37
3	A. I can say that they would include	11:07:38
4	whatever number was assigned.	11:07:44
5	My hesitancy is that we know in	11:07:52
6	particular with regard to Mr. Revitch that he	11:07:56
7	asked not to be called and there was a delay in	11:07:59
8	putting the bad number code in.	11:08:01
9	So I would presume that in the time and	11:08:11
10	-- between when he made that request and it wasn't	11:08:14
11	fulfilled -- and it was fulfilled, but there was a	11:08:17
12	code that was not correct with regard to his	11:08:20
13	consent.	11:08:29
14	Q. Okay.	
15	A. But that's the only one that I could	11:08:29
16	ever opine on because we have notes and telephone	11:08:30
17	calls that we've listened to and et cetera.	11:08:34
18	Q. I want to direct your attention to your	11:08:37
19	expert report, Page 16, Footnote 35.	11:09:24
20	And the last sentence --	11:09:31
21	A. Just give me a second --	11:09:36
22	Q. Okay.	11:09:38
23	A. -- so I can read it.	11:09:39
24	Q. Go ahead.	11:09:41

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1	first seen date that may only exist for one date	11:14:53
2	in time.	11:14:57
3	That is why we have the 120 that end up	11:14:59
4	being identified by him as being potential class	11:15:05
5	members when they are, in fact -- the TLO data	11:15:09
6	itself shows you that it is more likely than	11:15:12
7	not -- or at least the best association that they	11:15:16
8	have is -- for the person using that phone, best	11:15:19
9	association TLO gives you is the same name as the	11:15:24
10	accountholder.	11:15:27
11	Q. You believe Mr. Weir should have looked	11:15:27
12	at the last seen date?	11:15:30
13	A. I believe -- well, I don't believe he	11:15:31
14	should be using TLO at all because I think it's	11:15:34
15	highly unreliable. I find all of the dates bad.	11:15:38
16	But at least if you look at the last	11:15:41
17	seen date, that means that they have a -- TLO is	11:15:43
18	reporting back that it's an indication, "Hey, I	11:15:46
19	have something somewhere. I won't tell you what	11:15:50
20	it is. I won't tell you -- you know, I can't tell	11:15:53
21	you how reliable this particular piece of data is.	11:15:54
22	However, I've got something that is associating	11:15:58
23	them with this number as of this date."	11:16:04
24	If I were Mr. Weir and I was advocating	11:16:07

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1	Q. All right. Now, I think you said	11:25:42
2	before, you eliminated 120 numbers or people from	11:25:43
3	the sample set based on the last date seen, is	11:25:47
4	that correct?	11:25:51
5	A. No, that wasn't -- if we go back -- I	11:25:51
6	want to make sure I get this correct.	11:25:56
7	Yeah, that is correct. Removing the	11:26:17
8	120 phone numbers, it actually matched the	11:26:20
9	Citibank accountholders once the reported last	11:26:25
10	seen dates are accounted for, using his data.	11:26:29
11	And that indicated -- and we also	11:26:30
12	wanted to make sure that the first and the last	11:26:34
13	seen dates had some overlap with the date that the	11:26:36
14	calls were made. So we baked into it as well, the	11:26:40
15	thing that Mr. Weir did not, which is, is there a	11:26:44
16	correlation between these first seen and last seen	11:26:47
17	dates and the time the calls were made. That is	11:26:50
18	something that he completely did not take into	11:26:53
19	consideration.	11:26:55
20	Q. When you say that, do you mean you	11:26:56
21	wanted the call -- you had a first seen date and	11:26:58
22	you had a last seen date and you wanted the call	11:27:01
23	to have occurred at some point in between those	11:27:03
24	two dates?	11:27:06

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1   A.   Correct.   11:27:07

2   Q.   I see.   11:27:11

3   A.   Or -- or -- I mean, it's probably a   11:27:11

4 little bit broader than that in that some of the   11:27:12

5 calls -- because there were many calls. We didn't   11:27:15

6 do an analytic on every one, but it had to bracket   11:27:17

7 within the first and last seen date.   11:27:22

8   So there might have been a call, let's   11:27:26

9 say, prior to the last seen date. And the last   11:27:29

10 seen date might have been, let's say, November of   11:27:33

11 2018. And there might have been another call   11:27:36

12 after that, but we don't have another last seen   11:27:39

13 date. But it would have been banded within; there   11:27:44

14 was a correlation. We did not count anywhere it   11:27:47

15 was -- to the left of the first seen date or to   11:27:50

16 the right of the last seen date.   11:27:53

17   Does that make sense?   11:27:55

18   Q.   Yes.   11:27:56

19   A.   Okay.   11:27:57

20   Q.   And when you engaged in that process,   11:27:57

21 did you assume that the first seen date and the   11:27:59

22 last seen dates were accurate?   11:28:01

23   A.   No, we used his data. We just said --   11:28:03

24 I mean, I do not believe that these dates are   11:28:07

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1	accurate, just period, under any circumstances.	11:28:10
2	But we're testing his methodology and we're trying	11:28:14
3	to determine, based on his stated goals of what	11:28:19
4	he's trying to do, does he do that, right?	11:28:25
5	So our use of the first seen and last	11:28:29
6	seen date is our way of testing what he did to see	11:28:33
7	if it holds water based on what he's claiming	11:28:36
8	it's -- the results are, okay? So it is	11:28:39
9	independent of my personal view and my opinion	11:28:45
10	that those dates are inaccurate in general and	11:28:47
11	unreliable.	11:28:50
12	Q. I'd like to direct your attention to	11:28:52
13	Page 22, paragraph 70.	11:29:35
14	(Witness viewed said document.)	11:30:14
15	THE WITNESS: Uh-huh.	11:30:19
16	BY MR. SMITH:	11:30:20
17	Q. In paragraph 70 of your report, you	11:30:21
18	note or you opine that Mr. Snyder acknowledged	11:30:23
19	that the wrong number codes do not always indicate	11:30:28
20	the literal truth that the wrong person was, in	11:30:32
21	fact, contacted or that a call was made without	11:30:36
22	consent.	11:30:40
23	Do you see that?	11:30:40
24	A. Uh-huh.	11:30:41

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1	Q. Now, in that sentence, are you	11:30:41
2	referring to wrong number codes in the phone	11:30:44
3	indicator database or the account notes or both?	11:30:49
4	A. Well, the account notes go back in	11:30:52
5	time. It has the audit trail essentially. The	11:30:59
6	Contact Utilities Database does not. That just	11:31:05
7	starts in November of 2017.	11:31:08
8	Mr. Snyder only included data in the	11:31:11
9	Contact Utilities Database. So I'm referring to	11:31:14
10	Mr. Snyder's conclusion of this step.	11:31:17
11	Now, I believe that he didn't	11:31:21
12	understand what was in the Contact Utilities	11:31:24
13	Database, the date ranges that it contained. And	11:31:29
14	so when you bake that error in, it's -- you know,	11:31:32
15	I don't know what he would have -- his -- he --	11:31:37
16	the statement is his methodology presumes -- and I	11:31:47
17	think he thought the Contact Utilities Database	11:31:53
18	went all the way back in time, okay?	11:31:55
19	So if you put that as a -- you know, if	11:31:57
20	we agree that that's what he thought, my answer is	11:32:01
21	his inclusion of this change in the con-- -- in	11:32:07
22	the indicator codes was an acknowledgment that	11:32:12
23	over time wrong numbers -- the same wrong number	11:32:15
24	can be then changed to be a consent to call, that	11:32:17

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1	they're not always accurate as a wrong number.	11:32:24
2	Because somebody may say -- these are	11:32:29
3	debt collection calls, right? So you're getting a	11:32:32
4	phone call that you don't necessarily want because	11:32:36
5	somebody is telling you you owe them money, right?	11:32:39
6	So, "Hi, this is Citibank. Please -- are you	11:32:42
7	aware your payment is late?"	11:32:45
8	And, oops, do we need to stop?	11:32:49
9	THE VIDEOGRAPHER: The time is	11:32:55
10	11:32 a.m. We are off the record.	11:32:56
11	(A pause was had in the	11:33:02
12	proceedings.)	11:33:05
13	THE VIDEOGRAPHER: The time is	11:33:05
14	11:33 a.m. We are back on the record.	11:33:33
15	THE WITNESS: So people may say, "Hey,	11:33:37
16	this is the wrong number." Or what they say	11:33:39
17	might be interpreted by the -- the customer	11:33:42
18	service agent is it's a bad number, it's a	11:33:47
19	wrong number may be incorrectly. It gets	11:33:50
20	coded that way.	11:33:53
21	And they may call back in and say,	11:33:54
22	"I want to make a payment." And then they'll	11:33:57
23	say, "Is it okay to talk to you on this	11:33:59
24	phone? Is this an okay number?" And they'll	11:34:02

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1	say, "Yes."	11:34:03
2	So there's -- the decisions and	11:34:03
3	the statements by the customers who are	11:34:08
4	answering the phone can change over time, and	11:34:09
5	that was being acknowledged by Mr. Snyder and	11:34:12
6	Mr. Weir by trying to exclude telephone	11:34:16
7	numbers that originally had a bad number but	11:34:22
8	subsequently got changed to consent. That	11:34:25
9	was their -- my understanding was that was	11:34:27
10	their acknowledgment of that reality.	11:34:29
11	BY MR. SMITH:	11:34:32
12	Q. So is it the case, this problem that	11:34:35
13	you're describing, does that suggest that	11:34:39
14	sometimes the -- the focusing on the consent	11:34:41
15	indicator change database, that wrong number in	11:34:45
16	the codes -- wrong number codes in that database	11:34:50
17	may not actually accurately reflect the notion	11:34:54
18	that a wrong number call had been made?	11:35:00
19	A. That's correct.	11:35:03
20	Q. Does that also hold true for the	11:35:03
21	account notes?	11:35:07
22	I mean, if there's a wrong number code	11:35:10
23	in the database, would there also -- and let's	11:35:12
24	say -- strike that.	11:35:15

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1	Let's say there's an incorrectly marked	11:35:17
2	wrong number code in the database. Would you	11:35:19
3	expect to find that same code in the account	11:35:22
4	notes?	11:35:26
5	A. Not necessarily, because the phone	11:35:26
6	indicator data sometimes is updated automatically.	11:35:31
7	Let's say if a phone number is disconnected and so	11:35:35
8	it's a bad number now. So there isn't any	11:35:41
9	interaction with a customer service agent.	11:35:43
10	Q. Well, let's put aside that scenario. I	11:35:45
11	mean, is it -- is it -- is it possible that	11:35:48
12	incorrect wrong number codes are also reflected in	11:35:51
13	the account level notes?	11:35:55
14	A. Yeah, I think -- I think that is	11:35:57
15	certainly possible because you're dealing with	11:36:01
16	human error. So if a -- if there's a customer	11:36:04
17	service call with an individual and they	11:36:08
18	misinterpret what's being told to them, and they	11:36:10
19	make a decision to change an indicator code that	11:36:14
20	isn't accurately reflecting what the customer	11:36:18
21	wanted or instructed them to, then the phone	11:36:21
22	indicator database would reflect that error. But,	11:36:27
23	you know, that's because there's no perfect system	11:36:30
24	when you're dealing with human beings.	11:36:32

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 1        Q.    Okay.  So going back to the consent      11:36:36

 2   codes you identify in paragraph 21 of your report.   11:36:48

 3        A.    Uh-huh.                                    11:37:06

 4        Q.    At the end of the chart, you've got the    11:37:07

 5   codes for not valid/bad number, which is N or B,      11:37:13

 6   depending on whether or not you're looking at FDR     11:37:18

 7   or IBS, is that right?                                11:37:22

 8        A.    Yes.                                       11:37:25

 9        Q.    Okay.  So those -- those number -- or      11:37:26

10   those letter codes that you see in the account        11:37:28

11   level documents may or may not be accurate because    11:37:32

12   sometimes people lie about receiving a wrong          11:37:37

13   number?                                               11:37:39

14        A.    Well, these are the same things -- they    11:37:39

15   reflect exactly what is in the phone indicator        11:37:41

16   data except it goes back in time.                     11:37:45

17        Q.    Right.                                      11:37:47

18        A.    So to the extent you believe that some     11:37:47

19   of the phone indicator data is not accurate --        11:37:50

20   like Mr. Revitch is an example.  He asked this is     11:37:54

21   a wrong number.  It should have been updated the      11:37:57

22   first time he said that.  It wasn't.  It was a        11:38:00

23   customer service error.                               11:38:05

24             But I've seen nothing -- my review of       11:38:06
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1	changes that your experts themselves have	11:43:59
2	indicated or warranted is by doing an account	11:44:02
3	level review because that's the only place you can	11:44:05
4	find it.	11:44:09
5	Q. By the same token, could you -- would	11:44:09
6	it be problematic to rely on codes to identify if	11:44:17
7	there was consent to call?	11:44:22
8	For instance, looking at the top of the	11:44:24
9	chart on paragraph 21, you've got an entry that	11:44:28
10	says "Consent to Call Only."	11:44:31
11	And if you looked for the codes V or A,	11:44:32
12	would that be a reliable or an unreliable method	11:44:34
13	for trying to identify whether calls were made	11:44:38
14	with consent?	11:44:41
15	A. I haven't undertaken any kind of	11:44:42
16	analysis, so I don't have an opinion on that.	11:44:44
17	Q. Okay. So you can't say one way or	11:44:45
18	another today?	11:44:48
19	A. No, because you would have to go	11:44:48
20	through an account level review and determine --	11:44:50
21	you'd have to take a sample, a statistically sound	11:44:53
22	sample and review the account notes and determine	11:44:58
23	whether or not the codes, as they are identified,	11:45:01
24	match the information in the account records.	11:45:08

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1	However, I will say a lot of this is	11:45:13
2	automated. And so, for example, when somebody	11:45:16
3	puts in their telephone number on an online	11:45:21
4	application, that's a consent to call and that's	11:45:25
5	probably going to have a very high reliability --	11:45:28
6	high level of reliability.	11:45:31
7	When they revoke it, that's a very	11:45:34
8	different situation because often that is a	11:45:37
9	communication with an individual and so it's more	11:45:40
10	likely to have room for error. Whatever that	11:45:43
11	level of error is I have no idea.	11:45:48
12	Q. Do you know whether or not the reason	11:45:50
13	Mr. Revitch started receiving wrong number calls	11:45:53
14	in this case was because a gentleman named	11:45:56
15	Mr. Axlerod had input his wrong phone number on	11:45:59
16	the Internet?	11:46:02
17	A. Yes, I'm sure that's -- I know that's	11:46:02
18	the case. Most people know their phone number,	11:46:04
19	though.	11:46:06
20	Q. If plaintiffs' expert modified the	11:46:06
21	methodology to focus on wrong number account	11:46:11
22	information in the account level documents instead	11:46:18
23	of the database and the codes, would that be, in	11:46:22
24	your view, a more reliable method for identifying	11:46:28

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1	Daley. I am not Marcos Sasso, your	11:48:07
2	accountholder," and they're typing all of that	11:48:11
3	information in.	11:48:14
4	The call recipient on wrong number call	11:48:15
5	is typically not captured in the account records.	11:48:18
6	It's not a part of the business records of the	11:48:22
7	bank.	11:48:25
8	What they need to know is, ooh, this is	11:48:25
9	a bad number, don't call it anymore. They click	11:48:29
10	the button and they put it into the system not to	11:48:33
11	call.	11:48:35
12	They don't capture the name of the	11:48:35
13	wrong number recipient. Nine times out of ten	11:48:37
14	those people are angry that they're getting phone	11:48:43
15	calls and they're not trying to give their name.	11:48:44
16	They're just saying, "Stop it." So that is not	11:48:45
17	part of the records.	11:48:46
18	The only way you can identify the	11:48:47
19	recipient of the call records is to know who got	11:48:50
20	that call. Your experts are suggesting that they	11:48:55
21	can do that by using TLO. My report demonstrates	11:48:59
22	how -- how highly unreliable that is. You will	11:49:03
23	not be compensating the right people by using TLO.	11:49:08
24	You will not get the call recipients of a wrong	11:49:14

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1	number call by using the methodology that's been	11:49:16
2	outlined by your -- your experts.	11:49:20
3	Q. Back to paragraph 70.	11:49:24
4	A. Just give me a sec. Let me read it.	11:50:32
5	(Witness viewed said document.)	
6	THE WITNESS: Oh, yes, uh-huh.	11:50:46
7	BY MR. SMITH:	
8	Q. At the end of the paragraph, you say,	11:50:48
9	"Mr. Snyder apparently concedes that the	11:50:50
10	overwhelming majority of calls marked as wrong	11:50:53
11	numbers appear to have been made to account	11:50:56
12	holders."	11:51:00
13	Do you see that?	11:51:00
14	A. Yes.	11:51:00
15	Q. And is it your opinion that the	11:51:00
16	overwhelming majority of calls that were marked as	11:51:02
17	wrong numbers appeared to have been made to	11:51:06
18	accountholders?	11:51:09
19	A. "Appear" is the operative word here.	11:51:10
20	There's a reason that was drafted the way it is.	11:51:13
21	I have no idea who actually received	11:51:16
22	those calls. Mr. Snyder does not know who	11:51:18
23	received those calls. I don't know who received	11:51:21
24	those calls.	11:51:23

1	But when you use the TLO data, it is --	11:51:24
2	as I talk about the feedback loop, they're just	11:51:27
3	giving you back the same name as the	11:51:30
4	accountholder, based on the fact they're pulling	11:51:34
5	that kind of data.	11:51:36
6	And it's typically not updated. So if	11:51:38
7	indeed one of the accountholders abandoned their	11:51:41
8	telephone call -- their telephone number and it	11:51:45
9	was reassigned, TLO isn't giving you the name of	11:51:48
10	that new -- new cellular telephone number owner or	11:51:51
11	subscriber.	11:51:57
12	And I think there's another sentence in	11:52:03
13	my report that talks about that particular issue	11:52:05
14	somewhere that -- saying -- saying just what I	11:52:08
15	just said.	11:52:11
16	Q. In paragraph 72 of your report, you	11:52:13
17	note that you have decades of experience using	11:52:39
18	TLO, LexisNexis, and other data -- data vendors?	11:52:43
19	A. Yes.	11:52:46
20	Q. Do you have decades of experience with	11:52:46
21	TransUnion in particular?	11:52:53
22	A. Well, TransUnion is a -- well,	11:52:53
23	TransUnion is an interesting company, because	11:52:59
24	TransUnion bought TLO back in like 2012, 2013.	11:53:01

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1	A. Yes.	11:58:19
2	Q. Okay.	
3	A. Yeah, not a different one. Sorry if I	11:58:21
4	wasn't clear.	11:58:23
5	Q. Is one of your critiques of the	11:58:25
6	methodology employed by Mr. Weir in this case that	11:59:02
7	he only took into account last names as opposed to	11:59:04
8	first and last name?	11:59:08
9	A. Yes.	11:59:10
10	Q. And on paragraph 78 of your report, you	11:59:10
11	have an anecdote about Veronica Cabrales and	11:59:19
12	another person named Veronica Martinez, who may or	11:59:24
13	may not be the same person?	11:59:30
14	A. Correct. They are the same person.	11:59:31
15	Q. You believe they are the same person?	11:59:33
16	A. They are the same person.	11:59:34
17	Q. Okay.	
18	A. TLO tells you they're the same person.	11:59:36
19	He just didn't get the alias report.	11:59:38
20	Q. And you trust TLO's information for the	11:59:41
21	purposes of determining that these two people are	11:59:43
22	the same person?	11:59:46
23	A. Well, they've got the data that would	11:59:46
24	show that they -- over time, so...	11:59:48

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1	And I believe we also did Internet	11:59:50
2	research that confirmed it --	11:59:53
3	Q. So --	11:59:56
4	A. Because --	11:59:57
5	Q. I'm sorry. Go ahead.	11:59:57
6	A. I'm not sure with this particular one.	11:59:58
7	I'm trying to see.	12:00:01
8	Yeah, this one we're relying on the --	12:00:02
9	we're relying on the TLO report, which is -- which	12:00:06
10	is -- which identifies them as an alias.	12:00:13
11	So I certainly wouldn't -- if I'm	12:00:18
12	relying -- if I'm relying on TLO, which Mr. Weir	12:00:20
13	is, if TLO is telling me they're the same person,	12:00:22
14	I don't know how you say that they aren't.	12:00:26
15	Because it's Mr. Weir that's saying that they're	12:00:30
16	highly reli- -- that TLO is highly reliable and	12:00:32
17	they know what they're talking about. And so I	12:00:34
18	don't know how he would discount TLO's association	12:00:37
19	of these two people being the same person.	12:00:41
20	Q. Who else on the list of phone numbers	12:00:43
21	or people identified in the sample set do you	12:00:48
22	think were misidentified as potential class	12:00:51
23	members as a result of looking only at last names?	12:00:58
24	A. Actually, we found another one	12:01:02

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1	Q. Uh-huh.	12:09:37
2	A. Like companies in general?	12:09:38
3	Q. Companies in general.	12:09:39
4	A. I don't have any opinion about	12:09:40
5	companies in general.	12:09:42
6	Q. Do you have any opinion about banks in	12:09:43
7	general?	12:09:45
8	A. I have not undertaken any analysis that	12:09:45
9	would be able to allow me to form an opinion as to	12:09:52
10	how prevalent that is.	12:09:58
11	Q. Do you have any understanding about	12:10:00
12	whether or not Citibank sometimes has outdated	12:10:01
13	information about people?	12:10:07
14	A. Well, if you look at Mr. Revitch, the	12:10:09
15	information in the Contact Utilities Database was	12:10:16
16	outdated because he had told them his number was	12:10:21
17	that number and that it was not the account	12:10:26
18	numbers. So for a particular period of time, that	12:10:28
19	Contact Utilities Database was outdated in terms	12:10:32
20	of its information relating to him.	12:10:35
21	So anecdotally, if you go through the	12:10:38
22	account records, you can find circumstances in	12:10:42
23	which that may be the case.	12:10:46
24	Q. Earlier today I think you testified you	12:10:48

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1	years. And they only give -- it's towards	12:12:05
2	the back. I can't remember what the date is,	12:12:08
3	but it's old.	12:12:11
4	They don't know that I've been	12:12:12
5	using this phone in continuous use. Despite	12:12:14
6	the fact that if you put that telephone	12:12:19
7	number on the Internet and Google it, you	12:12:21
8	will come up with my name because my cell	12:12:24
9	phone is listed in our directory, our online	12:12:27
10	directory. So how come they don't get that,	12:12:30
11	right? I -- there just aren't studies done	12:12:34
12	because they don't disclose anything about	12:12:40
13	the nature of the data that they're pulling	12:12:42
14	from.	12:12:45
15	BY MR. SMITH:	12:12:45
16	Q. Do you have an opinion, one way or	12:12:45
17	another, about whether outdated information from	12:12:48
18	companies can be one cause for unreliable	12:12:53
19	information in the last seen date?	12:12:56
20	MR. SASSO: Object to the form.	12:13:00
21	THE WITNESS: It's possible, but I	12:13:01
22	don't really have an opinion. I have no idea	12:13:04
23	of where they're getting their data from.	12:13:06
24	///	

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1	the data, the Metadata per se, the TLO reports,	12:15:11
2	that all of the pieces of the information should	12:15:16
3	have been considered unless he had a reason to	12:15:20
4	believe that it was irrelevant or unreliable.	12:15:23
5	Now, the probability of ownership	12:15:29
6	scoring is TLO's own assessment of the reliability	12:15:32
7	of what it is reporting. TLO is the only one that	12:15:36
8	knows what the source of that association is.	12:15:41
9	They -- they know whether or not it's a	12:15:45
10	document -- it's coming from a document they	12:15:51
11	consider to be reliable or it's from some junkie	12:15:56
12	lead list that they bought five years ago from God	12:15:58
13	knows who. I don't know where this data is coming	12:16:01
14	from, but TLO does.	12:16:04
15	And one of the things that it tries to	12:16:05
16	do, I would argue poorly, but at least it's	12:16:06
17	trying, is to advise its clients how reliable a	12:16:11
18	particular association is that it's reporting,	12:16:19
19	because they make the decision that we're going to	12:16:21
20	report everything; you're going to get the whole	12:16:23
21	kitchen sink, everything. And so I'm going to	12:16:26
22	report to you the -- the gossip that I got from	12:16:29
23	my -- my mother, and I'm going to report to you	12:16:36
24	information that I received from a government	12:16:38

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1	probability of ownership includes with it the	12:17:59
2	totality of associations, the quality of	12:18:04
3	associations.	12:18:09
4	So his methodology, which is the "I'm	12:18:10
5	just going to pick the most recent first seen	12:18:16
6	date," makes zero sense, absolutely zero sense,	12:18:21
7	because it is saying I'm going to ignore the	12:18:27
8	totality of the documentation that TLO has, the	12:18:31
9	quality of the association, the sources, and TLO's	12:18:35
10	own view of how reliable this is. I'm going to	12:18:41
11	substitute my own judgment. I'm just going to	12:18:46
12	pick this one weird little thing that, according	12:18:49
13	to me at least, nobody told me it is unreliable,	12:18:52
14	because they told him -- apparently they told him	12:18:56
15	the other things were unreliable. And it	12:18:57
16	substitutes his own judgment and ignores	12:19:01
17	overwhelming evidence that an individual is, like	12:19:04
18	usually the bank, accountholder, is still	12:19:09
19	associated with a phone number.	12:19:11
20	So that -- that is what those	12:19:14
21	paragraphs attempt to articulate.	12:19:16
22	Q. Do you think Mr. Weir should have given	12:19:19
23	more weight to what TransUnion says about its	12:19:21
24	products?	12:19:25

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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

1	A. I think that ignoring it based on the	12:19:25
2	statements of some unnamed account executive is --	12:19:28
3	is troubling. I think that, at the very least, if	12:19:34
4	he believes that it is reliable data to begin	12:19:39
5	with, he should be taking it into consideration.	12:19:43
6	Q. Okay. He should not ignore what	12:19:48
7	TransUnion says about its products?	12:19:50
8	A. I think it's -- I think it's a data	12:19:52
9	point that he should be considering. What weight	12:19:55
10	he gives it, I don't know, but I can tell you that	12:19:57
11	ignoring it leads to the results that he has.	12:20:00
12	Q. Apart --	12:20:09
13	A. He's just cherry picking --	12:20:10
14	Q. I'm sorry.	
15	A. He's cherry picking one data point and	12:20:13
16	creating a class based on it, and the results are	12:20:14
17	very unreliable as a result. But I think all of	12:20:18
18	this data is unreliable.	12:20:20
19	Q. All --	
20	A. I wouldn't use any of it.	12:20:23
21	Q. Any of what? The probability score?	12:20:24
22	A. I wouldn't use the probability score.	12:20:26
23	I wouldn't use any of it. I don't think it's	12:20:29
24	capable in any way, shape or form of identifying	12:20:31

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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

1	the class members that are -- that would be the	12:20:35
2	members of the class as defined by the plaintiffs.	12:20:40
3	I don't think it can be done.	12:20:45
4	Q. Apart from anything you did in	12:20:46
5	connection with this case, have you ever used	12:20:49
6	TransUnion's probability of ownership score?	12:20:53
7	A. I don't think so.	12:20:56
8	Q. So the only time you used it was to run	12:20:59
9	a report on yourself and Mr. Weir?	12:21:02
10	A. No. We've used -- I mean, it's been	12:21:04
11	part of the data that we've received in other	12:21:08
12	cases.	12:21:10
13	Because Verkhovskaya has -- I've been	12:21:11
14	in a number of cases with her, and she uses a	12:21:15
15	completely different methodology than Mr. Weir and	12:21:20
16	Mr. Snyder. And she uses both LexisNexis and TLO.	12:21:24
17	I think she calls it a reverse waterfall.	12:21:29
18	And so she has produced to us TLO data,	12:21:33
19	and I'm not sure if it had the probability score,	12:21:38
20	but it may well have. So this wouldn't have	12:21:41
21	been -- if it did, this isn't the only time we've	12:21:46
22	seen it. This is the case in which I've given it	12:21:48
23	the most attention.	12:21:50
24	Q. I see. Okay.	12:21:52

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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

1	I could take a break in a little bit,	12:32:44
2	if you have a good stopping point, like five, ten	12:32:45
3	minutes.	12:32:48
4	Q. Yeah, I have just a few more questions.	12:32:49
5	A. Whatever is convenient for you.	12:32:51
6	Q. Yeah. On the last sentence of	12:32:56
7	paragraph 102, you note that the -- Citibank uses	12:32:58
8	a TCPA compliance mechanism that updates some	12:33:04
9	telephone numbers that appear in multiple accounts	12:33:11
10	to conform them to the lowest common level of	12:33:14
11	consent.	12:33:17
12	Do you see that?	12:33:19
13	A. Uh-huh.	12:33:19
14	Q. Can you explain what you meant by that?	12:33:19
15	What is -- what do you mean by the lowest level of	12:33:22
16	consent?	12:33:25
17	A. Well, I would refer you back to	12:33:26
18	Mr. Andrew Meeks' -- Todd Andrew Meeks'	12:33:28
19	declaration because he's really the expert there	12:33:34
20	and I'm referencing his statements.	12:33:37
21	But in terms of what I meant when I	12:33:41
22	drafted it, the lowest level of consent would be	12:33:43
23	"don't call me, you have no consent."	12:33:47
24	Q. Okay.	12:33:51

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1	A. So if somebody says "do not call me" or	12:33:52
2	"this is a bad number," that means no consent. No	12:33:56
3	consent would be the lowest level of consent.	12:34:01
4	Middle range would be you can text me,	12:34:04
5	but don't call me; you can call me, but don't text	12:34:07
6	me.	12:34:11
7	Highest level would be, call me, text	12:34:11
8	me, this number is yours to communicate with me in	12:34:15
9	any way you want.	12:34:17
10	Q. And does that lowest level of consent	12:34:19
11	track to the account or the telephone number or	12:34:21
12	the customer name or something else or all of the	12:34:25
13	above?	12:34:27
14	A. I'm not sure -- well, this is all	12:34:27
15	specific to each individual account. You can	12:34:32
16	have -- I mean, people have multiple accounts with	12:34:36
17	Citibank. You can have multiple credit cards.	12:34:38
18	You got -- you can have ten credit cards that	12:34:43
19	they're -- that they're servicing either as a	12:34:46
20	Citibank credit card or your kid has a card and	12:34:48
21	you signed on as a signatory for him.	12:34:52
22	I mean, people have very different	12:34:57
23	relationships with the bank. Some of them are	12:34:59
24	very complex because there are a lot of different	12:35:01

1	they -- while they appear to have different names,	01:45:36
2	they clearly are related. They are on each	01:45:39
3	other's accounts and they share the same telephone	01:45:41
4	number.	01:45:44
5	Q. Did you --	01:45:50
6	A. None of which you would know without	01:45:50
7	digging into the account notes.	01:45:52
8	Q. Did you conduct any analysis of how	01:45:55
9	frequently agents make mistakes in terms of	01:45:57
10	flagging wrong numbers or any other consent codes?	01:46:01
11	A. Well, we looked at the -- the data of	01:46:05
12	the account records and we noted it where we saw	01:46:08
13	it. I mean, obviously, it happened with	01:46:14
14	Mr. Revitch. It happens here. I mean, it -- it's	01:46:17
15	something that occurs.	01:46:20
16	Q. Where did you note it? Did you keep a	01:46:21
17	running tally?	01:46:24
18	A. In the report where we've identified	01:46:25
19	it.	01:46:27
20	Q. So this report contains every instance	01:46:28
21	where you found an example of agent error?	01:46:30
22	A. No.	01:46:33
23	Q. Okay. What other documents could I	01:46:34
24	look at to discern other examples where you found	01:46:37

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1	Database recorded a change in consent from B	01:49:37
2	to N.	01:49:40
3	A. Let me go back and read the context	01:49:41
4	here and I'll answer that.	01:49:43
5	(Witness viewed said document.)	01:49:46
6	THE WITNESS: I don't know for sure,	01:49:47
7	but it wouldn't surprise me if it had	01:50:33
8	something to do with the name change, that	01:50:39
9	they received information that it was a	01:50:42
10	different last name, voicemail message,	01:50:47
11	et cetera, but that's speculation.	01:50:53
12	BY MR. SMITH:	01:50:56
13	Q. On Page 186 of your report, you note,	01:52:06
14	"Mr. Weir has the lowest level of TLO's	01:52:11
15	subscription service."	01:52:17
16	A. You mean paragraph 186?	01:52:23
17	Q. Did I say page?	01:52:25
18	A. Yes.	01:52:25
19	Q. I meant paragraph, yes. Thank you.	
20	A. That's why I didn't include all that	01:52:29
21	other analysis. I was afraid I would get to 186.	01:52:31
22	Q. Let's go to paragraph 186.	01:52:31
23	A. Yes, uh-huh.	
24	Q. And I'm just focused on the first	01:52:34

1	sentence. I just want to know what you meant when	01:52:35
2	you said, "Mr. Weir has the lowest level of TLO's	01:52:38
3	subscription service."	01:52:43
4	A. 25 bucks a month.	01:52:43
5	Q. That's a price, but --	01:52:44
6	A. That gives you the lowest level of	01:52:45
7	access. It's one of those -- the databases will	01:52:47
8	charge you a certain amount of per monthly fee and	01:52:54
9	you get to -- you may have an all you can eat.	01:53:00
10	You may have a -- you get this much data and it's	01:53:05
11	cheaper. So if you can guess the level -- you	01:53:08
12	get -- you pay the least amount based on what you	01:53:12
13	expect is going to be your known level of use.	01:53:15
14	And I'll see if I can unpack that a little bit	01:53:19
15	because I can see I'm confusing you.	01:53:22
16	If you are using these databases on a	01:53:25
17	regular basis -- and this is much like a Westlaw	01:53:29
18	subscription for a law firm, right? If you're	01:53:32
19	going to use it a lot, you want to pay a certain	01:53:35
20	amount because you want to pay close to the amount	01:53:38
21	that you're going to -- you want to pay for the	01:53:43
22	amount of volume that you know you're going to get	01:53:46
23	in. Because if you go over that, the price gets	01:53:48
24	really expensive very fast.	01:53:51

1	thing.	01:56:28
2	Q. And it has nothing to do with the	01:56:28
3	amount he pays on a per month basis?	01:56:31
4	A. No. It just means his clients are	01:56:31
5	paying an awful lot of money for it because he	01:56:32
6	doesn't have a subscription that allows him to --	01:56:35
7	when you pull the data over a -- your	01:56:35
8	subscription -- your paid prescription [sic]	01:56:41
9	amount, the price per search is typically much	01:56:42
10	higher. So the ultimate clients, if he's passing	01:56:46
11	that along to them, they're paying a lot more	01:56:50
12	money than if they were going to somebody that had	01:56:54
13	a higher -- was paying for more volume. They'd be	01:56:58
14	paying less per search.	01:57:01
15	Q. Can you tell me what search tools you	01:57:03
16	have access through TLOxp?	01:57:10
17	A. TLOxp?	01:57:14
18	Q. Sure.	01:57:17
19	A. We have access to everything. We have	01:57:18
20	both -- we have both batch access as well as the	01:57:22
21	ability to pull individual reports. The	01:57:25
22	individual reports have all the information that	01:57:28
23	they sell.	01:57:31
24	There's certain limitations, such as	01:57:35

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1	determine whether or not the data that he was	02:25:55
2	analyzing was complete and accurate. And I found	02:25:58
3	it very shocking that he didn't think that it was	02:26:01
4	his role to report any errors or to give any	02:26:06
5	feedback or to provide the results for analysis to	02:26:10
6	the person who was giving the opinion on the data.	02:26:15
7	I thought all of that was highly unusual,	02:26:19
8	unscientific and not in keeping with best	02:26:24
9	practices, to say the least.	02:26:30
10	Q. Do you agree or disagree that	02:26:31
11	Mr. Weir's role was to operationalize Mr. Snyder's	02:26:35
12	instructions?	02:26:40
13	A. I don't understand honestly what these	02:26:41
14	two were doing, really.	02:26:43
15	You have Mr. Snyder who is giving the	02:26:45
16	opinion, and Mr. Snyder doesn't know anything	02:26:47
17	about the data and can't pull it because he	02:26:50
18	doesn't even have access to it.	02:26:53
19	And then you have Mr. Weir who backs	02:26:55
20	off in his deposition of providing any kind of	02:26:58
21	opinion about the results and then nobody ever	02:27:00
22	looked at it.	02:27:02
23	I have no idea what these two thought	02:27:03
24	they were doing, but it's highly unusual for -- in	02:27:05

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1	number. But it doesn't contain the name of any	02:43:56
2	subsequent carriers, so you're not going to get --	02:44:04
3	if I ported my cell phone to a landline number, it	02:44:07
4	doesn't -- it's not there.	02:44:11
5	Q. Which numbers in the set of 176 from	02:44:14
6	the sample set were misidentified as cell phones?	02:44:18
7	A. I don't know that that -- that they	02:44:22
8	were.	02:44:25
9	Q. Is there any other area where Mr. Weir,	02:44:26
10	in your view, did not follow Mr. Snyder's	02:44:42
11	instructions?	02:44:45
12	A. Yes. He said that if there is	02:44:45
13	inconsistencies in the data, that you would either	02:44:50
14	throw the number out of the class or you would do	02:44:54
15	an individualized investigation.	02:44:56
16	And the methodology that Mr. Weir chose	02:45:00
17	to select the names associations in TLO ignored	02:45:07
18	the complexity and just simply grabbed the most	02:45:12
19	recent first seen date and called it a day and	02:45:19
20	didn't do anything to look at the dates of the	02:45:24
21	calls, didn't do anything to analyze when there	02:45:26
22	were more than one name associated with a	02:45:29
23	telephone number at the same time. He just	02:45:32
24	ignored all of that and just grabbed the -- the	02:45:36

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1	most recent first seen date and made that a class	02:45:41
2	member if that particular name didn't match it	02:45:46
3	with the accountholder name. And that clearly	02:45:51
4	ignores that.	02:45:59
5	And he also talks about first name	02:46:00
6	matches, and Mr. Weir didn't do anything with	02:46:02
7	first names, much to his -- to the detriment of	02:46:05
8	his analysis because we were able to show that	02:46:11
9	there were a number of first name matches based	02:46:12
10	on -- that were actually the same people because	02:46:14
11	women change their name and men change their name	02:46:17
12	and people change their last name. It's not an	02:46:21
13	exotic thing to have happen.	02:46:24
14	Q. Was Mr. Snyder asked at his deposition	02:46:26
15	what he meant by the term "inconsistencies in	02:46:36
16	data"?	02:46:43
17	A. It was an all-day deposition. I can't	02:46:43
18	tell you at this point whether that specific	02:46:44
19	question was asked.	02:46:47
20	Q. Do you know what Mr. Snyder meant when	02:46:47
21	he used the term "inconsistencies in data"?	02:46:51
22	A. I know what I interpreted it to mean.	02:46:54
23	What was inside his head you would have to ask	02:46:58
24	him.	02:47:02

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1	My understanding of it was the	02:47:02
2	inconsistencies would be that which -- those of us	02:47:03
3	who work with this day to day and day -- day in	02:47:07
4	and day out note where more than person is being	02:47:08
5	associated with a telephone number at the same	02:47:12
6	time, only one of those people typically picks up	02:47:16
7	an individual telephone call, you know.	02:47:20
8	So if you've got one -- if you've got	02:47:24
9	two, three, four names being associated with a	02:47:29
10	telephone number at the exact same time, that's an	02:47:32
11	inconsistency.	02:47:38
12	Q. Does that mean the answer to my last	02:47:41
13	question is no?	02:47:43
14	A. I have no idea. That's my answer.	02:47:44
15	Q. Do you know what Mr. Snyder meant when	02:47:47
16	he used the term "inconsistent data," yes or no?	02:47:51
17	A. You're, you know, looking for -- I	02:47:55
18	already answered that. I know what I interpreted	02:47:58
19	it to mean. If you want to ask him what he meant,	02:48:00
20	you need to ask him.	02:48:04
21	Q. Because you do not know?	02:48:05
22	A. I understand what I took it to mean.	02:48:07
23	This is -- it's his language; it's his	02:48:14
24	head. You want to know what he thought he meant	02:48:16

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1	A. -- because you're going to miss anybody	02:58:07
2	that changes their name.	02:58:07
3	Q. Is there any reason you can think of	02:58:08
4	why the methodology couldn't be modified to	02:58:11
5	account for first names the way you described?	02:58:16
6	A. There are certain errors that they made	02:58:18
7	that could be modified, but the entire methodology	02:58:20
8	fails because of a lot of the compound errors,	02:58:26
9	because of the fact that most of the information	02:58:30
10	is embedded in the account records, and because	02:58:33
11	the TLO data is in and of itself irretrievably	02:58:36
12	unreliable. So you can do some fixing around the	02:58:43
13	edges, but it's essentially putting lipstick on a	02:58:46
14	pig.	02:58:49
15	Q. Is taking a count of first names one of	02:58:49
16	the ways to improve the methodology?	02:58:52
17	A. It certainly would be better than what	02:58:53
18	you had before, but it's not -- you know, you're	02:58:59
19	talking about improving. You can't improve this	02:59:00
20	methodology to make it reliable without doing an	02:59:02
21	individualized analysis of the account records on	02:59:09
22	an account-by-account basis manually. And even	02:59:11
23	then I think trying to use TLO is -- is a fail	02:59:16
24	because that data is so bad.	02:59:19

1	Q. Earlier, a moment ago, you described an	02:59:22
2	issue with the software not catching similarities	02:59:25
3	in names like Nick and Nicholas.	02:59:29
4	A. Uh-huh.	02:59:32
5	Q. Do you -- do you recall when you were	02:59:33
6	sitting in on Mr. Weir's deposition he described	02:59:34
7	how the software that matches names can be	02:59:39
8	adjusted to capture a broader range of names and	02:59:41
9	capture that sort of similarity? Did you hear	02:59:47
10	that testimony?	02:59:50
11	A. I don't recall it.	02:59:50
12	Q. Okay. You don't recall reading that	02:59:52
13	testimony either?	02:59:58
14	A. It's not --	02:59:58
15	Q. Okay.	
16	A. I'm not denying that it's there. I	03:00:01
17	just don't recall it.	03:00:04
18	Q. And sitting here today, do you have any	03:00:04
19	reason to dispute Mr. Weir's testimony that the	03:00:06
20	software he used for name matching could be	03:00:10
21	modified to -- to address the criticism that you	03:00:13
22	just raised about similar names?	03:00:16
23	THE WITNESS: Can you read that back.	03:00:20
24	///	

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1	(The reporter read the record as	03:00:34
2	requested.)	
3	THE WITNESS: I don't have any	03:00:35
4	knowledge one way or the other. I'm not	03:00:36
5	familiar with the MatchIt program. I don't	03:00:38
6	know how configurable it is.	03:00:40
7	BY MR. SMITH:	03:00:43
8	Q. You've never used the MatchIt program	03:00:44
9	in connection with your work with BRG?	03:00:46
10	A. This is the first time we've used it.	03:00:49
11	It's not one that we've used -- that plaintiff's	03:00:53
12	experts have used in other cases that we've worked	03:00:58
13	on.	03:01:01
14	Q. And you don't consider yourself an	03:01:01
15	expert in that software, correct?	03:01:04
16	A. No, I had to -- I had a Stata expert	03:01:05
17	work on that data at my firm.	03:01:09
18	Q. What was that Stata expert's name?	03:01:11
19	A. Sam.	03:01:20
20	Q. Are there any other examples that you	03:01:21
21	can think of where you believe Mr. Weir failed to	03:01:23
22	follow instructions set forth by Mr. Snyder?	03:01:27
23	(Witness viewed said document.)	03:02:13
24	THE WITNESS: I don't know whether or	03:02:13

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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

1	the same name, Zoe Diaz, correct?	03:27:41
2	A. Yes.	03:27:43
3	Q. And you see the same phone number?	03:27:43
4	A. Yes.	03:27:45
5	Q. And it all matches the data that's in	03:27:45
6	Citibank's data, correct, by phone number --	03:27:49
7	A. Well, there's --	
8	Q. -- and name I mean?	03:27:51
9	A. You only got -- yeah, it's just got	03:27:51
10	those two things.	03:27:53
11	I have no idea whether -- you've got	03:27:55
12	the date first seen, date last seen. You got a	03:27:58
13	phone score. You got all kinds of other stuff.	03:28:01
14	That TLO data is likely wrong, so I'm	03:28:04
15	never going to sign on to anything of that being	03:28:07
16	accurate or correct. Maybe it's accurate in some	03:28:10
17	ways. No way to tell.	03:28:16
18	Q. Do you think it's more likely than not	03:28:18
19	that the Zoe Diaz with the exact same phone number	03:28:20
20	in the TransUnion data shown on the first row of	03:28:23
21	the first page of Exhibit 60 is the same Zoe Diaz	03:28:26
22	identified in Citibank's records?	03:28:32
23	A. I think that's probably more likely	03:28:35
24	true than not, yeah.	03:28:38

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1	Q. Okay. Do you know for the 20,000	03:28:45
2	Citibank customers that were sampled by Mr. Weir	03:28:57
3	how many were accurately matched by name and	03:29:00
4	number through TransUnion?	03:29:03
5	A. I -- oh, it was a really high number.	03:29:05
6	It was like 98 percent, something like that, which	03:29:09
7	on the flip side it tells you, if you believe that	03:29:17
8	all of those associations are correct, then that	03:29:22
9	means that most of the phone indicator data that	03:29:26
10	there was a wrong number code is wrong.	03:29:28
11	So -- and I put -- in my report there's	03:29:31
12	a notation that they're pulling data -- it's that	03:29:33
13	feedback loop -- they're pulling data from the	03:29:38
14	same sources that the -- in large part, they're	03:29:41
15	pulling data from bank records that may or may not	03:29:47
16	be dated. There's -- neither is right.	03:29:50
17	Q. What do you mean "neither is right"?	03:29:58
18	A. I mean the TLO data isn't right,	03:30:02
19	that -- I doubt that it's correct that 98 percent	03:30:11
20	of those wrong -- those calls that were indicated	03:30:15
21	as wrong numbers were associated with the	03:30:19
22	accountholders, but there's no way to tell which	03:30:24
23	ones were and which ones weren't because I think	03:30:29
24	they're pulling from some of the same data.	03:30:32

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 1        Q.    Are you aware of any method that could      03:31:56

 2   be used to identify business names in Citibank        03:31:59

 3   records?                                              03:32:03

 4        A.    Am I aware now?  No, I'm not currently      03:32:03

 5   aware of anything.                                    03:32:11

 6        Q.    You didn't investigate that issue          03:32:11

 7   before?                                               03:32:13

 8        A.    No.  It didn't come up.                    03:32:13

 9        Q.    Did you rerun Mr. Weir's analysis, do      03:32:16

10   it yourself from scratch?                             03:32:27

11        A.    Yes.                                       03:32:28

12        Q.    And how did you do that?                   03:32:29

13        A.    We followed as much as we could before     03:32:31

14   his deposition, his methodology, but it was very      03:32:36

15   difficult to follow.  And we couldn't replicate it    03:32:39

16   entirely.  We had issues.                             03:32:42

17        Q.    At what point -- how far down the          03:32:44

18   process were you able to go before you stopped,       03:32:47

19   pending his deposition?                               03:32:52

20        A.    I'm trying to remember where we got        03:32:56

21   disparate results.                                    03:33:00

22             I know that initially when we were          03:33:04

23   looking at the 176, we thought the 120 was an         03:33:08

24   error, that it wasn't purposeful because Mr. Weir     03:33:17
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1	didn't disclose in his report that he was relying	03:33:22
2	on the most recent first seen date.	03:33:27
3	So when we got the data for the 176,	03:33:33
4	kind of looked at it and went, wow, this is a huge	03:33:37
5	mistake. And we had just had that in another case	03:33:42
6	where the plaintiffs' expert just made a whopper	03:33:45
7	of a mistake on the analytics, and we kind of	03:33:49
8	assumed that that's what was going on here.	03:33:53
9	And then one of my staffer's came in	03:33:55
10	and said, "Wait a minute. I think I know what's	03:34:01
11	going on here." She showed me. I went like,	03:34:03
12	"Huh, that's an odd way to do this," but it added	03:34:09
13	up.	03:34:13
14	So we pulled -- we pulled our own TLO	03:34:13
15	data and got the batch reports and did that and	03:34:21
16	tried to replicate it.	03:34:24
17	I'm trying to remember where -- where	03:34:25
18	it went off. We couldn't match the numbers	03:34:27
19	entirely. I think it was from the -- I can't	03:34:29
20	recall whether or not it was on the trying to get	03:34:39
21	rid of the cellular numbers versus the landlines,	03:34:41
22	although that's usually not the problem because we	03:34:48
23	usually get the same date -- data. It might have	03:34:49
24	been because of the portability issue, but we	03:34:50

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1	couldn't replicate it.	03:34:57
2	Q. You could not replicate it?	03:34:58
3	A. No, we -- I don't know that we ever got	03:35:00
4	to the point where we could replicate it. I know	03:35:02
5	we hadn't replicated it as of the time of the	03:35:04
6	deposition because we had questions that we wanted	03:35:08
7	asked so that we could figure out how to replicate	03:35:11
8	it.	03:35:14
9	They had -- they had more instructions	03:35:14
10	than we usually see because it's -- typically in	03:35:19
11	these cases you get these sort of big general	03:35:23
12	narratives that are not analytic language, so to	03:35:26
13	speak. When you're doing data analytics, it	03:35:33
14	should be completely replicable.	03:35:35
15	And Mr. Weir did not produce the	03:35:38
16	numbers and the data reflecting each set. So	03:35:43
17	here's my 20,000; then I get to 14,000, he didn't	03:35:47
18	produce that. So you can't tell where it's gone	03:35:52
19	wonky. So -- and he didn't produce -- he	03:35:59
20	basically said, "I got these 20,000 and here's 176	03:36:01
21	and good luck getting there." So we had questions	03:36:05
22	that we wanted answered so we could try and figure	03:36:09
23	out where it was going wrong.	03:36:12
24	But at the end day, I think we might	03:36:13

1	have just stopped trying because the point was to	03:36:16
2	look at the 176. And there was an awful lot of	03:36:20
3	work to do there to review the account records.	03:36:25
4	And as you may recall, it was Christmas and New	03:36:28
5	Year's. It was all -- yeah.	03:36:32
6	Q. So I just want to step back and make	03:36:34
7	sure I understood.	03:36:40
8	You followed as much as you could up to	03:36:42
9	a certain point. Then there was some uncertainty	03:36:44
10	about using the first seen date or last seen date.	03:36:47
11	At a certain point, you understood that he was	03:36:50
12	using the most recent first seen date.	03:36:53
13	A. Yeah, we had that before the	03:36:56
14	deposition.	03:37:00
15	Q. And then you resumed your effort to	03:37:00
16	replicate. And at some point after that the	03:37:02
17	process got bogged down again.	03:37:06
18	And what I want to know from you is how	03:37:08
19	far further down the process you got once you	03:37:11
20	understood that he was looking at the --	03:37:13
21	A. And -- and --	
22	Q. -- most recent first seen date.	03:37:16
23	A. And the answer is I'm not sure I	03:37:17
24	actually know the answer to that because it was	03:37:20

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CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

1	probably Lanie Smith on my staff who was tasked	03:37:25
2	with doing the SQL work.	03:37:30
3	And I know that at a certain point we	03:37:36
4	just said it's not important. We're -- we were	03:37:38
5	off by -- I can't remember even by how much. But	03:37:43
6	we said it's not important; we can just look at	03:37:47
7	the 176.	03:37:50
8	We know -- he's testified now how he	03:37:52
9	got there, and we understand his articulated	03:37:53
10	process. And it's really about the 176. Let's	03:37:57
11	focus -- let's focus on his articulated class and	03:38:00
12	see what we can find there. The extent to which	03:38:04
13	we couldn't replicate it became really less	03:38:08
14	important.	03:38:12
15	Now, I don't know. It's possible that	03:38:16
16	she continued on and figured it out and it just	03:38:19
17	didn't bubble up to me. It certainly wasn't	03:38:23
18	something that made its way into the report.	03:38:27
19	Q. In terms of how far down the process	03:38:29
20	you got, however far that may have been, do you	03:38:33
21	recall roughly how many telephone numbers you had	03:38:37
22	sort of funneled down to, so to speak?	03:38:41
23	A. I don't recall. I'd be speculating at	03:38:44
24	this point.	03:38:47

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1	deposition he gave his cell phone number?	03:39:55
2	A. He gave his cell phone -- you mean his	03:39:57
3	cell phone number?	03:40:00
4	Q. His cell phone number.	03:40:01
5	A. Yeah, there was some discussion of his	03:40:02
6	cell phone numbers.	03:40:07
7	Q. Did you ever run that number through	03:40:07
8	TLOxp?	03:40:09
9	A. We ran Mr. Weir's name, I believe. And	03:40:09
10	so anything that would have been associated with	03:40:11
11	him would have been on that TLO report, which I	03:40:13
12	believe was a -- an exhibit.	03:40:15
13	Q. Okay. So you ran his name prior to the	03:40:19
14	deposition, but after the deposition of Mr. Weir	03:40:20
15	you didn't run any additional reports?	03:40:23
16	A. No, uh-uh.	03:40:25
17	Q. And is that because you believed you	03:40:27
18	would not get any additional information other	03:40:36
19	than what you had already obtained from the first	03:40:38
20	report?	03:40:40
21	A. I didn't care.	03:40:41
22	Q. Okay.	03:40:43
23	A. I mean, it just wasn't relevant. We --	03:40:44
24	we had the point made, which was Mr. Weir's data	03:40:46

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1	I presume that these -- I know that the	03:50:33
2	red ones may have been probably the last ones that	03:50:36
3	we were going through or something like here's one	03:50:38
4	that we really need to -- this may be the only one	03:50:40
5	left. I think that may be it. And then we did	03:50:42
6	some additional research and were able to find	03:50:46
7	what we did.	03:50:47
8	Q. Why do you make that assumption about	03:50:47
9	the red line?	03:50:50
10	A. Because somebody may have told me that.	03:50:51
11	I'm thinking in my head that somebody told me	03:50:58
12	that.	03:51:00
13	Q. What about the beige line?	03:51:00
14	A. I don't know.	03:51:03
15	Q. Don't know.	03:51:03
16	MR. SMITH: This one is 62 and that one	03:52:30
17	is 63.	03:52:32
18	(Daley Exhibits 62 and 63 was	03:52:35
19	marked for identification.)	03:52:36
20	BY MR. SMITH:	03:52:36
21	Q. So you've just been handed two	03:52:37
22	documents. One is marked Exhibit 62 and the other	03:52:40
23	is marked --	03:52:43
24	A. Oh, yeah.	03:52:43

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1	Q. -- Exhibit 63. They look very similar.	03:52:43
2	I will just note for the record,	03:52:49
3	Exhibit 62 comes from a native file that was	03:52:52
4	produced with the file name Citi_Revitch176151.	03:52:55
5	And Exhibit 63 had a file name ending in 153.	03:53:02
6	And do you recognize the documents that	03:53:11
7	have been marked as Exhibit 62 and 63?	03:53:14
8	A. Yes.	03:53:17
9	Q. What are they?	03:53:18
10	A. These refer to the same issue that I	03:53:18
11	brought up right at the beginning of the	03:53:21
12	deposition. I'm trying to look right now for the	03:53:23
13	paragraph. But it had to do with the analysis we	03:53:25
14	did about how many matches there were to a single	03:53:30
15	match on LexisNexis versus TLO. I'm trying to see	03:53:35
16	which the single name matches.	03:53:40
17	If you give me a second, I can pull the	03:53:43
18	right paragraph number. But I referenced it when	03:53:46
19	we first started.	03:53:57
20	(Witness viewed said document.)	03:55:08
21	THE WITNESS: Sorry, I'm just having a	03:55:10
22	hard time finding it. If you...	03:55:12
23	(Witness viewed said document.)	03:56:31
24	THE WITNESS: I found it, 156.	03:56:31

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1	BY MR. SMITH:	03:56:34
2	Q. I'm sorry?	03:56:35
3	A. Paragraph one fifty -- I'm sorry. Is	03:56:36
4	it 156 or is it 157?	03:56:37
5	157.	03:56:41
6	The -- the one marked Exhibit 62 is the	03:56:46
7	workpaper that supports the number of -- the	03:56:53
8	number 29 with a single name association. And as	03:56:56
9	you may recall earlier today, I said this was done	03:57:01
10	without reference to the dates of the calls.	03:57:05
11	And when you put that number in, when	03:57:09
12	you take that into consideration, the number	03:57:12
13	becomes 70 as opposed to 29. And this is the	03:57:16
14	workpaper for that, and I included both of them.	03:57:20
15	Q. I see.	03:57:23
16	So are the numbers in Exhibit 62 and 63	03:57:44
17	derived from the 176 numbers that Mr. Weir --	03:57:48
18	A. Yes.	03:57:53
19	Q. -- produced?	03:57:53
20	Okay.	03:57:54
21	A. It's just a comparison to LexisNexis	03:57:59
22	what those results would be.	03:58:03
23	Q. So the first number on -- I'm looking	03:58:17
24	at the top of Exhibit 63. The very first row	03:58:22

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1	you've got a phone number and name associated with	03:58:26
2	a number, Carlos Davila or Davila.	03:58:29
3	Do you see that?	03:58:33
4	A. Yeah.	03:58:34
5	Q. Did you make any determination whether	03:58:37
6	Mr. Davila received a wrong number phone call from	03:58:40
7	Citibank?	03:58:45
8	A. Well, the report talks about the fact	03:58:45
9	that there is a purported number of 176 potential	03:58:49
10	class members or numbers.	03:58:56
11	And what I did was go through the	03:59:00
12	database information that was pulled and my own	03:59:05
13	unique additional pulls and show that those names	03:59:09
14	are the same names as the accountholders in almost	03:59:14
15	every set of circumstances. There was some where	03:59:17
16	there was an address match, et cetera, but they	03:59:21
17	basically relate back to the accountholders.	03:59:24
18	And pursuant to Mr. Snyder's	03:59:27
19	methodology, any -- any matches are not class	03:59:29
20	members. And so, therefore, according to your own	03:59:39
21	class identification methodology name matching,	03:59:41
22	they aren't class members.	03:59:47
23	Q. That wasn't my question, though.	03:59:49
24	A. Well, I understand, but that's what I	03:59:51

CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

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 1   did.                                                03:59:53

 2       Q.    But my question is:  Did you make the    03:59:55

 3   determination whether or not Carlos Davila         03:59:56

 4   received a wrong number call from Citibank?        03:59:59

 5       A.    Nobody made that determination.  I       04:00:02

 6   don't even think your own experts have said that.  04:00:05

 7           I'm here to analyze what your -- your       04:00:08

 8   experts are purporting as a class identification   04:00:13

 9   methodology, and I don't believe either of your    04:00:16

10   experts are willing to say that anybody at any     04:00:19

11   particular time got a wrong number call.  They're  04:00:22

12   just saying here's a way we can get some names     04:00:25

13   that may have.                                     04:00:29

14       Q.    A moment ago when you said nobody made   04:00:30

15   that determination, were you referring just to     04:00:32

16   Carlos Davila specifically or all the names on --  04:00:35

17   itemized on Exhibit 63?                            04:00:42

18       A.    I think all of them.  There's a section  04:00:42

19   in my report where I believe both -- neither of    04:00:44

20   your experts are willing to -- certainly Mr. Weir  04:00:49

21   isn't saying that anybody particularly got a wrong 04:00:53

22   number call.                                       04:00:55

23           This is just simply your -- your whole      04:00:58

24   proposal to identify these class members is to     04:01:03
```

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1	name match or to exclude names from the	04:01:08
2	accountholders. That's -- that's as far as I	04:01:12
3	understand you're going, not that anybody in	04:01:15
4	particular got a wrong number call at any given	04:01:18
5	time. Nobody can tell who picked up a phone	04:01:22
6	unless you get into the account records.	04:01:26
7	Q. Looking again at Exhibit 63, the first	04:01:30
8	row -- I'm sorry, the first column is labeled "BRG	04:02:07
9	Matched Numbers," and then there are either 1s or	04:02:14
10	zeros that follow.	04:02:20
11	What do the 1s or zeros signify?	04:02:21
12	A. I'm not sure I know if there are -- I	04:02:26
13	have to count up to see if they come up to 29 or	04:02:41
14	70.	04:02:44
15	Usually that's the counter for the yes	04:02:48
16	or no of the analytic, a 1 equals yes and a zero	04:02:51
17	equals no, when you have the total at the bottom	04:02:56
18	typically.	04:03:03
19	My guess would be that if you counted	04:03:07
20	all of these up, you would probably get -- for	04:03:08
21	this one, for 63, you would probably get 70.	04:03:12
22	Are these the same on either side? BRG	04:03:24
23	match on the far right.	04:03:28
24	This particular workpaper is not one	04:03:31

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1	communication with a customer service rep, but the	04:33:08
2	phone utility database did not keep the historic.	04:33:11
3	As soon as there was a new indicator code, it	04:33:18
4	wrote over the old Phone Indicator Code.	04:33:21
5	Now, that information is available in	04:33:25
6	the account notes, embedded in it. Historically	04:33:26
7	you can go through and read the account notes and	04:33:30
8	you can find those old indicator codes, but it	04:33:34
9	wasn't maintained historically in an automated	04:33:39
10	database in a -- until November 2017.	04:33:42
11	Q. So if someone -- if an agent updated a	04:33:47
12	code in the account notes, would that code	04:33:54
13	information end up in another database?	04:34:01
14	A. When?	04:34:05
15	Q. At the moment the change was made.	04:34:05
16	A. But what -- when? Date?	04:34:07
17	Q. Let's say prior than November -- prior	04:34:11
18	to November 2017.	04:34:12
19	A. It would be overwritten. So the	04:34:13
20	indicator code is an instruction, right? It	04:34:18
21	instructs the dialer "do this," "don't do this"	04:34:21
22	under these circumstances. The dialer has this	04:34:23
23	data -- this information about how to treat every	04:34:26
24	particular number that gets uploaded with it.	04:34:29

1	Q. And how does the information get	04:34:32
2	transmitted from the account notes ultimately to	04:34:34
3	the dialer pre-November 2017?	04:34:38
4	A. I think it's -- I believe that it's	04:34:40
5	part of the -- it's part of the operations where	04:34:43
6	the account information is transferred. I mean, I	04:34:48
7	think the first thing they do is say, "Can we	04:34:53
8	dial?" So that's an exclusion, right?	04:34:56
9	So when they're trying to decide what	04:34:59
10	numbers are going to be uploaded to the dialer	04:35:01
11	tomorrow -- and Mr. Kalat has studied this more	04:35:04
12	carefully than have I, so I would defer to him.	04:35:08
13	But it's an exclusion so that those numbers are --	04:35:11
14	if it's a bad number or if it's a no consent, it	04:35:15
15	won't be sent to the predictive, if there's a	04:35:19
16	predictive dialer, or if there's a -- whatever	04:35:22
17	methodology that's going to be used, it won't --	04:35:24
18	the exclusions apply and it's not sent.	04:35:25
19	Q. Still focused prior to November 2017,	04:35:30
20	is it the case that there was records of a	04:35:35
21	consent -- the current consent notation, B, N, V,	04:35:40
22	whatever the code may be, but there was just no	04:35:47
23	records of historical changes?	04:35:51
24	MR. SASSO: Object to the form.	04:35:53

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1	THE WITNESS: I'm sorry. I didn't	04:35:54
2	follow.	04:35:55
3	BY MR. SMITH:	04:35:56
4	Q. Okay.	04:35:56
5	A. My fault.	04:35:56
6	Q. Let me put this away.	04:35:57
7	Let's say the date is January 1st,	04:35:59
8	2016, and you've got a given number. It doesn't	04:36:02
9	matter what number, some number associated with a	04:36:07
10	Citibank customer. And the consent code is either	04:36:11
11	N or B for that particular number on January 1st,	04:36:24
12	2016.	04:36:35
13	Is there some database that holds that	04:36:36
14	data that gets -- that allows that data to be	04:36:39
15	transferred or transmitted to the dialer?	04:36:44
16	A. My understanding is that that is	04:36:46
17	included in the account notes in the system of	04:36:51
18	record, but it is overwritten over time as it	04:36:54
19	changes.	04:36:58
20	And the only place where the changes in	04:36:59
21	an audit log exist is the Contact Utilities	04:37:03
22	Database and only from November 2017 going forward	04:37:07
23	and that there is not a queryable, automated way	04:37:10
24	to find the historical phone indicator data for	04:37:15

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1	You can put that away. You were asked earlier if	04:40:50
2	plaintiffs' expert modified the methodology to	04:40:53
3	focus on wrong number account information in the	04:40:56
4	account level documents instead of the database	04:40:58
5	and the codes, would that be, in your view, a more	04:41:01
6	reliable method of identifying class members.	04:41:05
7	Do you recall that?	04:41:09
8	A. Yes.	04:41:09
9	Q. So you and your team reviewed account	04:41:10
10	level documents, correct?	04:41:13
11	A. Yes, we did.	04:41:14
12	Q. And do you have an opinion on the	04:41:14
13	difficulty or viability of reviewing those account	04:41:17
14	records to do the type of analysis that was	04:41:21
15	proposed here in the plaintiffs' methodology?	04:41:24
16	MR. SMITH: Objection, compound.	04:41:28
17	THE WITNESS: I do.	04:41:30
18	BY MR. SASSO:	04:41:31
19	Q. And what's that?	04:41:31
20	A. There is not a way to review those	04:41:32
21	accounts in any kind of an automated fashion. The	04:41:37
22	only way that you can tease the information that's	04:41:43
23	relevant out of those account records is by a	04:41:49
24	manual review.	04:41:50

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```
 1                    CERTIFICATE

 2                        OF

 3             CERTIFIED SHORTHAND REPORTER

 4

 5             I, JANET L. ROBBINS, a Certified

 6    Shorthand Reporter of the State of Illinois, CSR

 7    License No. 84-2207, do hereby certify:

 8             That previous to the commencement of

 9    the examination of the witness, the witness was

10    duly sworn to testify the whole truth concerning

      the matters herein;

11             That the foregoing deposition

      transcript was stenographically reported by me and

12    was thereafter reduced to typewriting under my

      personal direction and constitutes a true and

13    accurate record of the testimony given and the

      proceedings had at the aforesaid deposition;

14             That the said deposition was taken

      before me at the time and place specified;

15             That I am not a relative or employee or

      attorney or counsel for any of the parties herein,

16    nor a relative or employee of such attorney or

      counsel for any of the parties hereto, nor am I

17    interested directly or indirectly in the outcome

      of this action.

18             IN WITNESS WHEREOF, I do set my hand and

19    affix my seal this 30th day of January, 2019.

20

21

22

23             JANET L. ROBBINS, CSR, RPR

24             CSR License No. 84-2207
```
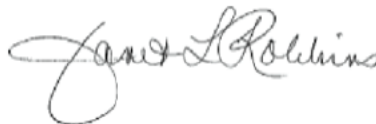
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EXHIBIT 2

```
 1              IN UNITED STATES DISTRICT COURT
 2              NORTHERN DISTRICT OF CALIFORNIA
 3
 4
 5    JEREMIAH REVITCH, on behalf     )
 6    of himself and all others      )
      similarly situated,            )
 7                                    )
         Plaintiff,                   )
 8                                    ) Case No.
            vs.                       ) 3:17-cv-06907-WHA
 9                                    )
      CITIBANK, N.A.,                 )
10                                    )
         Defendant.                   )
11    _____)
12              DEPOSITION OF RANDALL SNYDER
13
14              Taken at SLS Las Vegas
15          2535 South Las Vegas Boulevard
16             Studio 4, Grand Tower
17            Las Vegas, Nevada  89109
18
19           Sunday, December 23, 2018
20                   9:02 a.m.
21
22
23    Reported By: Gale Salerno, RMR, CCR No. 542
24    Job No. 3177667
25    Pages 1- 219
```

Page 1

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1   MR. SMITH: Objection. Misstates the

2   testimony. Calls for a legal conclusion.

3   THE WITNESS: No. What I did was I applied

4   the concept of wrong party number calls made with an

5   automatic dialing system. And more specifically, to

6   cell phone numbers, which I understand is what the

7   TCPA provides for. And based on that, those general

8   factors, that's how I created the methodology in my

9   report.

10   BY MR. SASSO:

11   Q.   And were you asked to take into account

12   whether calls were made to customers versus

13   noncustomers?

14   A.   Yes.

15   Q.   And how did you make the determination

16   whether a particular call was to a customer or

17   noncustomer?

18   A.   Well, in the methodology, if we determine

19   that a number was called that is not -- or that was a

20   wrong party number, which is indicated in the call

21   records, then the further step of obtaining contact

22   information, if the contact information we obtained

23   from one of the data processors matches the name on

24   the account record or is closely matched, then that

25   person is not a member of the class.

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1   However, if you obtain contact information

2   associated with a phone number, and the date that --

3   usually these data processors will provide a date

4   when -- in their system, that information to their --

5   to the data's best representation, is the date when

6   that first occurred.

7   You can be very sure that that was the

8   wrong -- that was the name and contact information of

9   the wrong number that was called.

10   Q.   You're able to be very sure that's the

11   wrong number called without doing any

12   cross-referencing, for example, to another data

13   source?

14   A.   In my opinion, what we did in the sample or

15   what Colin performed in the sample data is highly

16   reliable.

17   However, if it's deemed to not be reliable

18   enough, for instance -- again, this is an adaptable

19   methodology -- then you can further cross-reference

20   against other data sources.

21   So I have no problem with simply using

22   Transunion. But, again, it's an open methodology

23   that can be refined if needed.

24   Q.   Did you have any input in defining the

25   class as it was ultimately defined in plaintiff's

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1   Q.   Is it your understanding that the numbers

2   that Citibank was calling here were numbers that they

3   intended to call their customers at?

4   A.   Well, I can't -- I can't testify to what

5   Citibank's intentions were or are.

6   Q.   Is it your understanding the calls were

7   made here for collection purposes to reach Citibank

8   customers?

9   A.   Generally, yes. And we have evidence

10   that -- I agree that certainly that's their goal in

11   making these calls, but we have evidence that they

12   called wrong numbers.

13   Q.   You have evidence that they called numbers

14   that you claim were not associated with the customer?

15   A.   No. They called numbers that Citibank

16   claims were not associated with the customer because

17   they're the ones that testified that they marked

18   things as wrong numbers, and those are considered to

19   be wrong numbers when they marked them as such.

20   Q.   And then you also remember reading the

21   testimony where they said that wrong numbers may get

22   marked as wrong numbers, but then later changed when

23   the customer says they, in fact, were not a wrong

24   number?

25   A.   That's not part of my analysis. However,

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1   we did take into account if a record was marked as a

2   wrong number on a certain date, and then marked as

3   not and as a good number at a later date, we filter

4   out those records. So they're not included in the

5   class.

6   Q.   But the point being, though, so even in

7   that scenario, if you have a phone number that's

8   coded as a wrong number, and then it changes, the

9   coding -- the original coding as a wrong number

10 doesn't necessarily mean that it's actually a wrong

11 number, correct?

12   A.   Well, I can't testify to the thoughts and

13 underlying reasons of Citibank personnel. All I know

14 is what's in the records, and if it was a wrong

15 number on an earlier date, but then deemed to not be

16 at a later date, and we have evidence of that, which

17 we do in some records, we filter them out; they're

18 not part of the class.

19   Q.   We talked earlier about sequential and --

20 let me make sure I got this right. You were told by

21 counsel that sequential means one following another.

22   So where in the dialer documentation does

23 it define what sequential means?

24   A.   It doesn't. I don't know why it would. It

25 doesn't.

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1   was a wrong party number, and we have deposition

2   testimony that when they -- I think it was

3   Ms. Malahey (phonetic), when a call party says it was

4   a wrong number, they consider that a wrong number and

5   mark it as such.

6   So whatever they discuss that, if they

7   talked about the weather or talked about loans or

8   asked other questions, the fundamental piece of data

9   that we're using is a wrong party indication that's

10   been testified to actually mean Citibank considered

11   that a wrong number.

12   Q.   And you've read Ms. Malahey's (phonetic)

13   testimony where she then said that wrong number codes

14   are subsequently changed when customers indicate that

15   the wrong code was actually inaccurate?

16   A.   Absolutely. We've already discussed that,

17   and we actually eliminate them from the putative

18   class membership if it turns out that Citibank

19   discovers that a wrong number isn't actually a wrong

20   number.

21   We compare the dates, and we can easily

22   filter those out of the putative class. In fact, I

23   testified to that in my declaration.

24   Q.   Is there anything about the actual

25   day-to-day usage of the Aspect system by Citibank

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1   Q.   Well, then why don't we make it clear. So

2   for step one in paragraph 74, you're looking for the

3   change from the -- I think you said it was -- make

4   sure I got it right -- from IBS we're looking from

5   the change from -- here, J to H, and then for FDR

6   you're looking for B to N.

7   A.   Correct.

8   Q.   Right?

9   Okay. So then the phone indicator data

10   that has the indicators and the dates of the changes,

11   when you -- you reviewed that data, correct?

12   A.   Yes.

13   Q.   Did you review the entire data set, or just

14   a sample piece of it?

15   A.   Just a sample. My understanding is there's

16   hundreds of thousands or millions of records, and

17   based on deposition testimony, and what these

18   indicators mean, we can be very sure that those

19   indicators would be consistent as applied to all the

20   records.

21   Q.   Did you observe in that data that it did

22   not contain any records of consent flags for any

23   dates prior to November 2017?

24   A.   I don't recall if we did that step or not.

25   But certainly if that's a required step, as I said

1   before, this is an overall methodology that's very

2   adaptable.

3   So we can always filter for additional

4   information if need be. Or for instance, we're

5   supplying information that there's another indicator

6   that needs to be filtered. We could certainly

7   perform that step as well.

8   Q.   So let me just clarify. You don't recall

9   observing that there were no records of consent flags

10   for dates prior to November 2017?

11   A.   No. As far as I know, and which is

12   immaterial to this methodology, the date ranges for

13   applying this methodology could be any date ranges we

14   choose.

15   So this is the overall methodology, and if

16   we should only look at records in a certain date

17   range, that's certainly something we would add to

18   this.

19   Q.   So can the phone indicator data show

20   whether there was a consent flag on a number as of

21   October 2017?

22   A.   Can it? Certainly it can.

23   Q.   Do you know -- did you observe in the data

24   in this case whether it did show any indicator,

25   consent indicator codes as of October 2017?

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1   that number before and after that date, are you

2   including in your class the phone calls that come

3   prior to the date change, or are you including only

4   the calls that come from November 2017 to present?

5   A.   Regardless of whether it's November 2017 or

6   any other date, we're only counting calls after the

7   wrong party number indication is indicated. And it

8   hasn't changed back at any period of time after that.

9   So we looked at the wrong party number

10   indication, and all automatically dialed calls after

11   that date are counted.

12   Now, whatever cut-off date there is, based

13   on availability of data, or what the class period is,

14   is immaterial to that basic methodology.

15   Q.   But you have to start from the last change

16   date, has to be your starting point?

17   A.   Yes. You have to start when Citibank knew

18   it was a wrong number.

19   Q.   Okay. Step 2 in paragraph 75, you say that

20   this step is more important due to abundance of

21   caution, and that's because some wrong codes, wrong

22   number codes, are applied to numbers that may not

23   actually be wrong numbers.

24   A.   That's right. We're trying to eliminate

25   false positives. So that even if at some point in

Page 150

1   time it was considered a wrong party, but at some

2   later date it was considered not to be a wrong party,

3   we just don't count it at all.

4   Q.   And the phone indicators are a reflection

5   of sort of the ultimate process of what happened when

6   the agent spoke to somebody at that time?

7   A.   Yeah. And I don't know if it was that

8   specific behavior or what I gleaned from that

9   information is that that's -- these are the times the

10   calls were made after Citibank -- it was understood

11   by Citibank that this was a wrong party number.

12   Now, what the call center's behavior is or

13   whatever is immaterial to this objective analysis.

14   So we just look at the wrong party number.

15   We know from deposition testimony that that

16   really means they consider it a wrong number. And

17   then automatic calls are still made after that point

18   in time.

19   Q.   And you're not giving an opinion as to --

20   if we wanted to understand what actually happened

21   that led to the phone indicator changing to a wrong

22   number, you're not providing an opinion on how that

23   can be done to understand what led to that change?

24   A.   That's right. I'm only objectively looking

25   at what the indicator means based on deposition

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1   we're pretty sure that's a wrong party call.

2   So if the name and address information are

3   completely different from the name on the account

4   record, and it's indicated as a wrong party number,

5   and calls are continually made to that number after

6   Citibank considered it a wrong number, the analysis

7   of obtaining contact information could tell us

8   whether that name is the name on the account or not.

9   And if it turns out that that name was on the

10 account, we can eliminate that. That's something we

11 could exclude.

12   So we're really looking at people that

13 appear to have no relationship at all to the account

14 record where, you know, automated calls were made to

15 a wrong number.

16   So there's an extra confirmation step in

17 there when we obtain contact information.

18   Q.   I'm sorry, is it your testimony that the

19 data from Citibank includes the address information

20 for each of these accounts?

21   A.   No. But we look at the name, primarily.

22   Q.   So when you said that you compare the

23 address or name, that was not accurate?

24   A.   Yeah. It's really name. Thank you for --

25 thank you for noticing that I misspoke. We're really

Page 159

1   looking at the name information, that's right.

2   But there's no reason why we couldn't look

3   at address information and compare that as well. And

4   we could certainly -- again, this is an adaptable

5   methodology. If there's additional filtering that

6   needs to be made or comparisons that need to be made,

7   they certainly can be.

8   Q.   So step four, paragraph 77, so what process

9   is used to scrub four cell phones? Strike that.

10   Let me ask this step four, that's the

11 process where you then try to identify which of the

12 phone numbers are actually cell phones versus land

13 lines?

14   A.   Correct.

15   Q.   So explain to me the process that takes

16 place there.

17   A.   It's all written out in a separate section

18 of my report called identifying cellular telephone

19 numbers.

20   It's actually very simple to do. It comes

21 from the origination of the ability to port telephone

22 numbers from November 2013.

23   So there's a main realtime database and

24 offline database, and that data is sold to

25 wholesalers that then provide the service.

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1   here or there.

2   But over all, it's very reliable that

3   almost all of that data is correct.

4   Q.   So if the TLO data reports back a name,

5   number combination where there are multiple names

6   associated with a single phone number, and there is a

7   single date associated with one name, but a broader

8   range of dates associated with a different name,

9   which one of those is more reliable?

10   A.   I don't have that experience using data

11   with that hypothetical. All I can say is if you get

12   data that looks erroneous for some reason, you can

13   always cross-reference that against another data

14   processor, or you in our case, you can eliminate it

15   from the class if you're not exactly sure.

16   But I know just as a good practice in cases

17   like we have here, we're only trying to use data that

18   we're very sure of.

19   So any conflicting data or any erroneous

20   data that we can see is erroneous or conflicting, we

21   typically just don't count, or we try and confirm it

22   in other ways.

23   Q.   In terms of how TLO is used, are they -- is

24   Mr. Weir performing sort of individual name/number

25   searches, or is he doing a batch search?

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1   be a business number. So it's not associated with an

2   individual, it would be a member of the class. I'm

3   sure he's aware of that, but you would have to ask

4   him specifically.

5   Q.   When you say you exclude business numbers,

6   you exclude business numbers if the defendant's

7   records showed it associated with a business number,

8   or if the TLO reports back a business number?

9   A.   Either one. What you want to do is try to

10   exclude numbers associated business -- as a business

11   would not be a class member.

12   So if there's a determination on either the

13   account record from Citibank or from Transunion or

14   another data processor's database that comes back as

15   a business name and not an individual name, that

16   certainly can be excluded as not being a member of

17   the class.

18   I'm not aware of that situation happening

19   here, but Colin may be if you question him about

20   that.

21   Q.   And then how does the analysis account for

22   someone who is using their maiden name, for example?

23   A.   There's usually a high likelihood, if you

24   get name and address matching, and the only

25   difference is the last name, for instance, it's easy

1   to just to be conservative, eliminate them from the

2   class.

3   So if we have potentially a female that had

4   a maiden name in the Citibank account records, but we

5   have the same name with a different last name, and

6   maybe we query for address information, it might

7   match the address information. We could do that

8   step, too. That's in the account records. We could

9   be very sure that that's probably the same person.

10   And again, to be conservative, we try and

11 eliminate them from the class.

12   Q.   And do you know if that was done here to

13 take the additional step to query for address

14 information to eliminate people that may have a

15 similar first name but a different last name?

16   A.   I'm not sure. I don't think it was done

17 here. But again, as I said, the methodology we put

18 forth allows for additional filtering confirmation in

19 order to use a software process to determine class

20 membership.

21   So the idea is to try and eliminate false

22 positives as much as possible.

23   Q.   So do you think we need to do those

24 additional steps before we can get to what you guys

25 have coined a final list of wrong numbers, or do we

Page 197

1   Same for last names, same with first names.

2   So the idea is that we want to be very sure

3   that truly this wrong party number really did go to a

4   different person than the name on the account record.

5   Q.   So with respect to what was done in this

6   case, is that similarity score analysis, is that the

7   only piece that was done with respect to the TLO

8   data? Are you aware if Mr. Weir used the TLO data in

9   any other respects to identify class members?

10   A.   I don't know. You would have to ask him.

11   Q.   And do you know if the TLO data provides a

12   first seen date of a name association with a phone

13   number?

14   A.   I've seen first seen date in lots of these

15   data processors. I believe it does, but again, Colin

16   would be more of the expert to answer that question.

17   Q.   And do you know if the TLO data provides a

18   last seen date?

19   A.   It may. Again, Colin is an expert in the

20   usage of this data and the data that's returned based

21   on the queries he makes, so I would defer to him.

22   Q.   So in this case, are you providing any

23   opinion upon the reliability of a first seen date

24   versus a last seen date in the TLO data?

25   A.   No. I'm providing an opinion on the

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1   general methodology that can be used to identify or

2   contact potential class members.

3   Q.   So do you have any opinion on whether a

4   first seen date or a last seen date is more reliable

5   for identifying potential class members?

6   A.   It depends what data we're getting back,

7   what those dates are associated with, the dates in

8   the call log records for when the automatic calls

9   were made. All I can say is that an example of a

10   member who would be in the class is somebody that's

11   indicated by Citibank that they know is a wrong

12   number. There's no additional indications.

13   Automatic calls were made after that number was

14   marked as a wrong number, and we come up with a name

15   through one of the data processors that is completely

16   different than the name on the accounts.

17   That's the general methodology I'm opining

18   on. Colin is an expert in all of the individual

19   details of performing the numerical analysis and

20   implementing this basic methodology.

21   Q.   So do you have any opinion on whether or

22   not a person -- if a TLO report provides two names

23   associated with a phone number, and one name has an

24   earlier first seen date, and the latest last seen

25   date, so there's a range of dates that TLO provides

```
1              CERTIFICATE OF REPORTER
2         I, the undersigned, a Certified Shorthand
3    Reporter of the State of Nevada, do hereby certify:
4         That the foregoing proceedings were taken
5    before me at the time and place herein set forth;
6    that any witnesses in the foregoing proceedings,
7    prior to testifying, were duly sworn; that a record
8    of the proceedings was made by me using machine
9    shorthand which was thereafter transcribed under my
10   direction; that the foregoing transcript is a true
11   record of the testimony given to the best of my
12   ability.
13        Further, that before completion of the
14   proceedings, review of the transcript [ X ] was
15   [  ] was not requested pursuant to NRCP 30(e).
16        I further certify I am neither financially
17   interested in the action, nor a relative or employee
18   of any attorney or party to this action.
19        IN WITNESS WHEREOF, I have this date
20   subscribed my name.
21   Dated: December 24, 2018
22
23
24
25        GALE SALERNO, RMR, CCR #542
```

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EXHIBIT 3

```
 1   UNITED STATES DISTRICT COURT

 2   NORTHERN DISTRICT OF CALIFORNIA

 3   Case No. 3:17-CV-06907-WHA

 4   -------------------------------x

 5   JEREMIAH REVITCH, on Behalf of

     Himself and all Others

 6   Similarly Situated,

 7            Plaintiff,

 8

 9       - against -

10

11   CITIBANK, N.A.,

12            Defendant.

     -------------------------------x

13            December 28, 2018

              9:28 a.m.

14

15       ** C O N F I D E N T I A L **

16       Deposition of COLIN B. WEIR, taken by

17   Defendant, pursuant to Notice, held at the

18   offices of Ballard Spahr LLP, 1675

19   Broadway, New York, New York, before Todd

20   DeSimone, a Registered Professional

21   Reporter and Notary Public of the State of

22   New York.

23

24

25   Pages 1 - 380
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                                                    Page 1

1   A.   Again, I'm offering an opinion

2   about the general reliability of the data

3   and that my research would show that the

4   data is accurate in the sense that we are

5   generating matches, expected matches

6   between the Citibank data and the

7   TransUnion data, but I would not offer the

8   opinion that the TransUnion data is

9   perfect.

10   Q.   What percentage accuracy would

11   you attribute to the TransUnion data?

12   A.   I haven't been asked to

13   identify that precisely, but in other

14   situations where I have looked at similar

15   data, we wind up with situations where I

16   think in greater than 90 percent of

17   contexts the information is shown to be

18   definitively accurate, and then there is

19   additional data where, for example, it

20   shows a new customary user of the phone, it

21   is very likely that the majority of that

22   data is also accurate.

23   Q.   You said in certain instances

24   90 percent of the time the data is shown to

25   be definitively accurate?

1   A.   Correct.

2   Q.   How?

3   A.   Again, we have an expectation

4   from a company's record that a number would

5   be associated with a person and then that

6   turns out to be the case in the TLOxp data.

7   Q.   Have you personally performed

8   any searches to definitively determine that

9   90 percent accuracy rate?

10   A.   Not in this case, but in

11   general with this type of data.

12   Q.   When?

13   A.   I think the last time I would

14   have done it would have been in the last

15   month or so.

16   Q.   For who?

17   A.   A client in another case.

18   Q.   A TCPA case?

19   A.   Yes.

20   Q.   And you were asked in that case

21   to check to see whether or not the data was

22   right?

23   A.   No.   That was just information

24   that I gleaned through the analysis.

25   Q.   What information did you glean

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1   A.   Well, I didn't decide myself it

2   was a mobile number. I decided that the

3   carrier that TLO affiliated with that

4   number was a mobile carrier.

5   Q.   How many phone numbers of the

6   20,000 that you submitted came back with no

7   information at all?

8   A.   I don't have a precise

9   recollection of that.

10   Q.   How many came back as

11   landlines?

12   A.   Something less than 9,000 of

13   them.

14   Q.   Are you aware of the fact that

15   of the 20,000 numbers you submitted, TLO

16   returned results only for 13,344?

17   A.   I'm not aware.

18   Q.   Do you have any reason to

19   dispute the fact that of the 20,000 you

20   submitted only results were returned for

21   13,344?

22   A.   I would have to check, but I

23   don't have any basis as I sit here today to

24   argue with you.

25   Q.   Do you have any reason to

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```
 1  dispute the fact that TLO didn't return any

 2  results at all for 6,656 of the numbers you

 3  submitted?

 4        A.     Again, not without checking

 5  that data.

 6        Q.     Do you think that's a

 7  significant percentage of 20,000?

 8              MR. MARCHESE:  Objection to

 9  form.

10        A.     Again, I hadn't given it any

11  consideration.

12        Q.     You testified that you believed

13  TLO to be generally accurate, correct?

14        A.     Correct.

15        Q.     What do you do when there is no

16  data at all?

17        A.     Those numbers are omitted from

18  the analysis in a conservative way.

19        Q.     Does the fact that TLO doesn't

20  have data for a third of the numbers that

21  you submitted cause you to question at all

22  the accuracy of the data that they have?

23        A.     No.

24        Q.     You still believe it is

25  accurate even though they can't return
```

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1   Q.   If they did provide you with

2   names, what would you do?

3   A.   Run them through my matching

4   algorithm.

5   Q.   What is your matching

6   algorithm?

7   A.   It is part of this data program

8   known as Matchit, which does a bigram

9   analysis of two comparable pieces of text

10   and returns a Jaccard similarity score.

11   Q.   What would you do with that

12   information?

13   A.   I would then set a threshold

14   where if the similarity score was above a

15   certain amount, I would deem that as a

16   match of the name, and if it was below a

17   certain amount, I would deem it as a

18   mismatch for that name.

19   Q.   What were the amounts that you

20   set?

21   A.   Based upon my prior experience

22   doing this type of matching, I used a

23   threshold of 0.5. The Jaccard score ranges

24   basically like a baseball batting average,

25   from 0 to 1, and you would never expect

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1   matches to all be 1, because what we are

2   trying to do is find, for example, like if

3   you have the middle initial tacked on, we

4   wouldn't want that to kick out a particular

5   name.

6   So I set the score at 0.5. The

7   method is adaptable, so you could set that

8   at 0.4, if you wanted to be even more

9   conservative than I have already been.

10   Q.   What happens if there is

11 multiple names associated with the phone

12 number?

13   A.   Again, each name is evaluated,

14 and then per the date range discussion we

15 had today, I would look for the latest

16 match and the latest mismatch, and those, I

17 have described them as maximum match dates

18 and maximum mismatch dates, are then fed

19 back in to check the date range on the

20 calls.

21   Q.   Do you perform the -- what did

22 you call the name search again? I'm sorry.

23   A.   Matchit.

24   Q.   Did you perform the Matchit

25 search for every name that returned

1   associated with the phone number?

2   A.   So we would have -- I think

3   that's right. We would have paired the

4   Citibank data with the TransUnion data and

5   taken the name from Citibank and then

6   compared it with all of the names returned

7   from TransUnion.

8   Q.   And then after you compared it

9   with the names, you would perform your

10 first-seen date analysis?

11   A.   Correct. Once we had the

12 matching status, I would generate those

13 maximum first-seen dates.

14   Q.   The Matchit search that you

15 performed, did it check last names only?

16   A.   So it compared both the first

17 name and last name for one check and just

18 the last name only for a second check, and

19 either of those that appeared as a match

20 would be considered a match for my

21 analysis.

22   Again, the method is quite

23 adaptable, so if I was instructed to, for

24 example, match only the first name, the

25 method could work that way as well.

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1   Q.   When you say first name and

2   last name, did both of them have to match

3   for it to be excluded?

4   A.   So I ran a match on the first

5   name and last name and would deem it a

6   match if -- in some ways what I did was

7   basically an extra step that was not

8   necessary, because we accepted as a match

9   anything where just the last name matched.

10   So I matched them first by

11 first name/last name and then I matched

12 them a second time just by the last name.

13 If it matched as a last name, that was

14 accepted as a match.

15   Q.   Did you perform any searches

16 specific to just the first name?

17   A.   Again, I did not do that in

18 this case, but the method would be easily

19 adaptable, since the matching information

20 would be there to look at the first name

21 only and consider as a match any name where

22 the first name matches, but the last name

23 does not.

24   Q.   Mr. Snyder testified that you

25 typically get many results for a single

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```
 1          A.      We did one with a first and
 2   last and then one with a last.
 3          Q.      But if the last name didn't
 4   match under the fuzzy match, they were
 5   included, correct?
 6          A.      I'm sorry, say that one more
 7   time.
 8          Q.      If the last name didn't match
 9   Citibank's records, they were included in
10   the list, correct?
11          A.      They were found as a mismatch,
12   and that information was then used as part
13   of the way to generate the list.
14          Q.      So my wife's maiden name is
15   Kristin Kenny.  When we got married, she
16   changed her name to Kristin McKenna.
17                  She would be included in this
18   list if Citibank's records showed an
19   attempt to call Kristin Kenny?
20          A.      I would have to run the name
21   search and see if there was sufficient
22   information there for a match.
23                  If the Court were to want to
24   see a first name match, we can do that.  If
25   we wanted to see a slightly lower
```

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1   threshold, that is also very easy. It

2   would take, again, five or ten minutes.

3   Q.   But your fuzzy search isn't

4   going to identify maiden name to married

5   name changes?

6   A.   It would depend on the names

7   and the similarity of the names.

8   Q.   You would have to marry someone

9   who has a similar last name to your maiden

10   name, correct?

11   A.   If the names are similar, it is

12   going to find it as a match.

13   Q.   So, Mr. Weir, you can agree

14   with me that we are reaching the

15   ridiculous, right?

16   In order for that fuzzy search

17   to catch the married name, my wife's maiden

18   name and her married name would have to be

19   similar to each other, correct?

20   A.   Correct.

21   Q.   If her maiden name were

22   Fitzpatrick and she married me, McKenna,

23   they wouldn't connect on a fuzzy search?

24   A.   I'm sorry, pairing with you?

25   Q.   I am saying that if Citibank's

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1   think so.

2   Q.   Did you see any data from TLO

3   that showed multiple entries for the same

4   person?

5   A.   Yes.

6   Q.   Or date ranges for the same

7   person?

8   A.   Yes.

9   Q.   In those instances, did you use

10   the date range or did you use the

11   first-seen date?

12   A.   So to be conservative, as I

13   explained, I used the latest first-seen

14   dates for matches and the latest first-seen

15   date for mismatches.

16   Q.   And if a later first-seen date

17   contradicted with a date range for another

18   person, how did you deal with that

19   contradiction?

20   A.   When you are looking at the

21   last-seen date?

22   Q.   Yes.

23   A.   Based upon my prior experience,

24   I have relied upon the first-seen dates

25   because it would be very difficult for

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1   someone to become associated with a phone

2   number before they actually were associated

3   with the phone number.

4   So let's say you are about to

5   go get a cell phone, TransUnion is not

6   going to know what number you are going to

7   get in advance. So I believe the most

8   accurate information about the most current

9   customary user is the first-seen date data,

10 which is what I used, and in the

11 conservative maximum first-date fashion

12 that we have discussed.

13   Q.   Did you use the last-seen date

14 at all for your analysis?

15   A.   I did not, although it would

16 certainly be possible to incorporate that

17 into the analysis.

18   Q.   When you removed the name

19 matches, you were left with 176 unique

20 phone numbers that did not have last name

21 matches, correct?

22   A.   I think that's right.

23   Q.   In paragraph 15(VII)(4), you

24 state that "The resulting lists shows all

25 wrong number calls made to a cell phone

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1   an association, a single date, or do you

2   see multiple dates?

3   A.   Again, the first-seen date is

4   always going to be a single date, to the

5   best of my knowledge.

6   Q.   Have you seen an instance where

7   the first-seen date and -- what is the

8   last-seen date?

9   A.   Again, because of the way that

10   I use the data, I haven't given full

11   consideration to the last-seen date and

12   have been warned that that date can reflect

13   basically ongoing apparent affiliation with

14   a number when the number is no longer

15   affiliated with a person.

16   So, for example, you go online

17   and you sign up for a utility and you

18   discontinue your cell phone, but you never

19   changed the number associated with the

20   account, and so, again, I rely upon the

21   first-seen dates since those are going to

22   be more reliable indicia of when a new

23   person is affiliated with a number than the

24   last seen dates.

25   Q.   Who warned you that the

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1   last-seen date is less reliable than the

2   first-seen date?

3   A.   Again, I believe I got that

4   information from my discussions with both

5   TransUnion and with LexisNexis.

6   Q.   Who at TransUnion told you

7   that?

8   A.   I don't have a recollection.

9   Q.   When was your conversation with

10 TransUnion where they told you that?

11   A.   Again, a year or two ago.

12   Q.   Was it a year or two years ago?

13   A.   I don't have a precise

14 recollection.

15   Q.   Was it in 2018?

16   A.   It was either sometime in 2017

17 or 2018.

18   Q.   Would it have been late 2017,

19 early 2017?

20   A.   Probably, again, mid 2017

21 through -- I mean, I didn't have the

22 conversation yesterday, so I'm guessing mid

23 2017 to early 2018.

24   Q.   And someone at Lexis told you

25 that the last-seen date was less reliable

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CONFIDENTIAL

1   A.   Using a combination of

2   first-seen date for matches and mismatches.

3   Q.   And the matches and mismatches

4   we previously discussed are name matches,

5   correct?

6   A.   They are based on names,

7   correct.

8   Q.   And based on last names?

9   A.   Correct, although they could

10   easily be based on first names only.

11   Q.   I don't want to talk about what

12   you can do, I want to talk about what you

13   did do, and you only did it on last names,

14   right?

15   A.   I did it on last names,

16   although it would be very easy to do on

17   first names.

18   Q.   Does your methodology focusing

19   on last names take into account at all that

20   people change their names?

21   A.   Again, all I'm doing is

22   comparing the customary users with the

23   names identified in Citibank.

24   Q.   I would like to look at a

25   couple of examples of that, if that's okay.

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1   You will see there are a few

2   calls to Tom's Custom Upholstery. Do you

3   see that?

4   A.   Yes.

5   Q.   What did you do to account for

6   businesses in your search?

7   A.   I have not been asked to

8   account separately for businesses, but I

9   have given some consideration, again, if I

10   was asked to do this, the Citibank notation

11   for businesses has the business name in the

12   first name and last name field.

13   I would search, again, to match

14   those records where the first and last

15   names match and remove them from the

16   dataset.

17   Q.   But you didn't do that so far,

18   right?

19   A.   I haven't been asked to do

20   that, but I'm aware that I can.

21   Q.   We keep talking about all these

22   things you could do improve the results,

23   but you didn't do any of those things so

24   far, right?

25   A.   I don't know that I would agree

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1   CERTIFICATION

2

3   I,   TODD DeSIMONE, a Notary Public for

4   and within the State of New York, do hereby

5   certify:

6   That the witness whose testimony as

7   herein set forth, was duly sworn by me; and

8   that the within transcript is a true record

9   of the testimony given by said witness.

10   I further certify that I am not related

11   to any of the parties to this action by

12   blood or marriage, and that I am in no way

13   interested in the outcome of this matter.

14   IN WITNESS WHEREOF, I have hereunto set

15   my hand this 31st day of December, 2018.

16

17

                TODD DESIMONE
18

19

20   *   *   *

21

22

23

24

25

                                    Page 380

EXHIBIT 4

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Attorneys for Plaintiff

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

JEREMIAH REVITCH, on behalf of himself and all others similarly situated,
 	
                Plaintiff,
 	
          v.
 	
CITIBANK, N.A.
 	
                Defendant.
	Case No. 3:17-cv-06907-WHA
	
	REPLY DECLARATION OF RANDALL A. SNYDER
	
	Date: February 14, 2019
	Time: 8:00 a.m.
	Courtoom: 12, 19th Floor
	
	The Hon. William H. Alsup

UNREDACTED VERSION OF DOCUMENT SOUGHT TO BE SEALED

REPLY DECLARATION OF RANDALL A. SNYDER
CASE NO. 3:17-cv-06907-WHA

1

REPLY DECLARATION OF RANDALL A. SNYDER

2   I, Randall A. Snyder, hereby declare as follows:

3   1.   My name is Randall A. Snyder. I am an adult over the age of 18 and a resident of

4 the state of Nevada. I have personal knowledge of each of the matters stated herein, and if called

5 to testify I could and would testify competently about them.

6   2.   I am an independent telecommunications technology consultant and reside at

7 8113 Bay Pines Avenue, Las Vegas, Nevada, 89128. I have been retained by Bursor & Fisher,

8 P.A. to provide my opinions relating to the dialing technology utilized by Citibank, N.A.

9 ("Defendant" or "Citibank") to make outgoing debt collection calls. In particular, I have been

10 asked to determine whether the Defendant utilized equipment that stored or produced telephone

11 numbers to be called, using a random or sequential number generator, and dialed such numbers,

12 and whether the Defendant utilized equipment that dialed telephone numbers from a stored list of

13 numbers automatically. In addition, I have been asked to determine whether identity and contact

14 information for proposed Class members can be correctly obtained based on the produced call

15 log data.

16

RELEVANT TRAINING, EXPERIENCE AND CREDENTIALS

17   3.   I have over 34 years of experience in telecommunications network and system

18 architecture, engineering, design and technology. I have expertise in the fields of both wireline

19 and wireless telecommunications networking technology. I have a Bachelor of Arts degree with a

20 major in mathematics from Franklin and Marshall College. I have been retained as a testifying or

21 consulting expert in over 320 cases regarding cellular telecommunications technology, including

22 over 280 cases regarding the Telephone Consumer Protection Act ("TCPA"). Additionally, I

23 have been retained by both plaintiffs and defendants regarding the TCPA and associated

24 regulations.

25   4.   I was a software engineer, designing, developing, testing and deploying code for

26 complex real-time database, data communications and telecommunications systems for the first

27

28

REPLY DECLARATION OF RANDALL A. SNYDER   1
CASE NO. 3:17-cv-06907-WHA

1   eight years of my career. This work included designing and developing relational databases,

2   database applications, data communications protocols, telecommunications protocols, signaling

3   protocols, call control and call processing systems and dynamic traffic engineering and overload

4   control systems for the cellular networks. Overall, these software systems were written in

5   assembly computer language (ASM), Pascal and C programming languages.

6   5.   I have taught many classes and seminars on both wireline and wireless

7   telecommunication network technologies and have been a panelist and speaker at numerous

8   conferences at the Institute of Electrical and Electronics Engineers ("IEEE"), the Personal

9   Communication Society ("PCS"), and the Cellular Telecommunications and Internet Association

10   ("CTIA") as an expert in telecommunication networks. I spent seven years developing standards

11   within the American National Standards Institute's subsidiary organization, the

12   Telecommunications Industry Association ("TIA"), providing technical contributions and

13   authoring and editing telecommunications proposed standards documents. Most notably, I

14   authored and oversaw the standardization of Interim Standard 93, providing interconnection

15   technology between wireline and wireless networks, which is now a fully accredited national

16   standard of the American National Standards Institute ("ANSI").

17   6.   I am the co-author of the McGraw-Hill books "Mobile Telecommunications

18   Networking with IS-41," and "Wireless Telecommunications Networking with ANSI-41, 2nd

19   edition" published in 1997 and 2001, respectively. I have been issued 40 patents on

20   telecommunications technology. I have been hired as a consultant by the CTIA, as well as by

21   many wireline and wireless telecommunications companies, including Bell Laboratories, McCaw

22   Cellular, AirTouch, AirTouch International, AT&T Wireless, AT&T Mobility, Lucent, Nokia,

23   Ericsson, Motorola, Samsung, Siemens, Nextwave, MCI, Daewoo, Globalstar, T-Mobile, Sprint,

24   U.S. Cellular, Teleglobe Canada, Teledesic and other telecommunications technology vendors

25   and service providers. I was also nominated in 2006 for a National Television Arts Emmy Award

26   for Outstanding Achievement in Advanced Media Technology for unique wireless content

27

28

REPLY DECLARATION OF RANDALL A. SNYDER   2
CASE NO. 3:17-cv-06907-WHA

1   distribution technology I designed while employed at Entriq, Inc. Still more detail, as well as

2   details of publications that I have authored or co-authored within at least the past 10 years, were

3   provided in my *curriculum vitae* (which was attached to my November 28, 2018 Declaration

4   (Doc. No.83-5)) along with a list of cases where I served as a testifying or consulting expert and

5   my standard rate sheet and signed retainer agreement.

6   7.   I am being compensated at the rate of $485 per hour for my study, analysis and

7   written testimony in this case and $525 per hour for depositions and in-court testimony.

8   **RESPONSE TO MISCHARACTERIZATIONS OF MY TESTIMONY**

9

10   8.   As identified in my November 28, 2018 Declaration, it is my opinion, based on

11   my knowledge, education, experience, expertise, training, and the facts described therein, that the

12   identities and contact information of individuals who received wrong-party calls from the

13   Defendant, at any point in time, can be definitively and clearly obtained based on the

14   methodology identified therein. The ability to do so is a straightforward administrative process.

15   9.   I have reviewed Mr. Colin Weir's execution of the methodology in his November

16   28, 2018 Declaration and believe that he correctly implemented the methodology in a reliable

17   and accurate manner. Nonetheless, Defendant contends that the methodology "was not

18   performed according [to my] expectations[.]" Daley Report ¶ 56; Opposition of Defendant to

19   Motion for Class Certification ("Opposition") at 12:17-15:15. This is a mischaracterization of

20   my testimony.

21   10.   At my deposition I repeatedly identified that "this is an adaptable methodology. If

22   there's additional filtering that needs to be made or comparisons that need to be made, they

23   certainly can be." Snyder Depo. at 160:4-7. To that end, I described additional steps that **could**

24   be undertaken to alleviate concerns of "false positives." *Id.* at 150:25; *see also, e.g.,* 139:3-7;

25   160:2-7; 197:3-9. Defendant and Ms. Daley use my candid discussion of the options available to

26   the Court to misrepresent the nature of my directions to Mr. Weir.

27   11.   For instance, Ms. Daley opines that I "was of the impression that the appropriate

28

REPLY DECLARATION OF RANDALL A. SNYDER   3
CASE NO. 3:17-cv-06907-WHA

1 way in which to compare names to find matches to customers was to check both first and last

2 names." Daley Report ¶ 77[1]; Opposition at 13:21-24 (claiming Mr. Weir did not follow my

3 instructions for how to handle "Citibank Accountholder name changes"). This is not true. When

4 asked at my deposition if Mr. Weir "eliminate[d] people that may have a similar first name but a

5 different last name?" (id. at 197:14-15), I correctly responded that "I don't think that it was done

6 here." Id. at 197:16-17. However, I did go to explain the "methodology we put forth allows for

7 additional filtering confirmation [like comparing first names]." Id. at 197:18-20. Indeed, as Mr.

8 Weir has testified and shown, it is a simple matter to run the name matching software against

9 first names in addition to last names. Weir Reply Decl. ¶ 61; Weir Dep., 347:15-17. Similarly,

10 it would also be very simple to adjust the name matching process to eliminate business names.

11 Weir Reply Decl. ¶ 61; Weir Dep. at 357:7-16.

12   12.   Citibank also represents that I "testified that conflicts in the TLOxp data can and

13 **must** be addressed by 'cross-referenc[ing] against another data processor, or you [sic] in our

14 case, you can eliminate it from the class if you're not exactly sure.'" Opposition at 13:18-20

15 (emphasis added) (quoting Snyder Dep. at 189:10-15). In fact, I testified as follows:

16   A. I don't have that experience usin_ data with that h_ _othetical.
         All I can sa_ is if _ ou _et data that looks erroneous for some
17   reason _ ou can alwa_ s cross-reference that against another data
         _ rocessor or __ in our case, you can eliminate it from the class if
18   you're not exactly sure.

19

20 Snyder Dep. at 189:10-15. I did not testify how conflicts "must" be resolved, I merely describe

21 the options available under the methodology with the assumption of "erroneous" data,

22   13.   I certainly never testified, as Citibank represents, that "competing 'first seen' and

23 'last seen' dates associated with multiple names" epresent a conflict that must be resolved in the

24

25 _____

26 [1] Ms. Daley's characterization of the "appropriate way" to match names is belied by Citibank's
    reliance on only last names to track when a cell phone has been reassigned. Compare Daley
27 Report ¶ 36 with ¶ 77.

28

REPLY DECLARATION OF RANDALL A. SNYDER   4
CASE NO. 3:17-cv-06907-WHA

manner described above. Opposition at 13:21-22. Instead I testified as follows:

> . So in this case are you providing an opinion upon the reliability of a first seen date versus a last seen date in the TLO data?

> A. No. I'm providing an opinion on the general methodology that can be used to identify or contact potential class members.

Snyder Dep. at 201:22-202:2; 201:19-21 ("A. … Again, [Mr. Weir] is an expert in the usage of this data and that data that's returned based on the queries he makes, so I would defer to him.").

14.   I have reviewed Mr. Weir's rationale for relying on the most recent "first seen" date included in the TLOxp data (*see, e.g.,* Weir Reply Decl. ¶¶ 31-34; Weir Dep., at 275:23-276:12 and 326:9-327:4) and I am satisfied that Mr. Weir's application of the TLOxp data is consistent with the methodology I proposed in my November 28, 2018 Declaration.

I declare that the foregoing is true and correct subject to the laws of perjury of the United States.

Executed in Las Vegas, Nevada, on this 1st day of February, 2019.

Randall A. Snyder

_____

Randall A. Snyder

EXHIBIT 5

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

JEREMIAH REVITCH, on Behalf of Himself
and all Others Similarly Situated,

                              Plaintiffs,   Case No. 17-cv-06907-JCS

        v.

CITIBANK, N.A.,
                              Defendant.

Reply Declaration

of

COLIN B. WEIR

February 1, 2019

REFERENCES MATERIALS DESIGNATED "CONFIDENTIAL" AND "HIGHLY

CONFIDENTIAL ATTORNEYS' EYES ONLY" UNDER PROTECTIVE ORDER

UNREDACTED DOCUMENT SOUGHT TO BE SEALED

I, Colin B. Weir, declare as follows:

I am Vice President at Economics and Technology, Inc. ("ETI"), One Washington Mall, 15th Floor, Boston, Massachusetts 02108. ETI is a research and consulting firm specializing in economics, statistics, regulation and public policy.

I. QUALIFICATIONS, BACKGROUND, AND EXPERIENCE

1.   I hold a Masters of Business Administration, with honors, from the High Technology program at Northeastern University, Boston, Massachusetts. I hold a Bachelor of Arts degree cum laude in Business Economics from The College of Wooster, Wooster, Ohio. I have provided expert testimony before federal and state courts, the Federal Communications Commission, and state regulatory commissions, and have contributed research and analysis to numerous ETI publications and expert testimony at the state, federal, and international levels. I have consulted on a number of cases involving telecommunications issues, including the TCPA, broadband technology and Internet access; technical issues associated with net neutrality; Early Termination Fees (ETFs); Late Fees; wireless handset locking practices, merger/antitrust analysis, determination of Federal Excise Tax burden, ISP-bound traffic studies, area code splits and related numbering policy, Universal Service Fund issues, pricing and regulation of Un-bundled Network Elements, analysis of special access rates and pricing trends, and development of a macroeconomic analysis quantifying the economic impact upon the US economy and job markets of overpricing special access services; wireless pricing; and wireline telecommu-nications tariff and contract pricing. I have consulted on a variety of consumer and wholesale products cases, calculating damages relating to telecommunications services, food products, household appliances, herbal remedies, health/beauty care products, electronics, and computers. My Statement of Qualifications, which outlines my professional experience, publications, and record of expert testimony, is attached hereto as Exhibit 1. This includes a list of all cases in

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which, during the previous four years, I have testified as an expert at trial or by deposition. Prior

to joining ETI, I worked at Stop and Shop Supermarkets for a period of seven years, working as

a cash department head, grocery/receiving clerk, and price-file maintenance head.

II. ENGAGEMENT

2.   I provide this declaration in connection with connection with the case filed by

Plaintiff Jeremiah Revitch ("Plaintiff") in the above-captioned action against Defendant

Citibank N. A. ("Defendant"). I have been asked by Counsel for Plaintiff to review the January

11, 2019 Report of Margaret Daley ("Daley Report") and to respond thereto. I make this

declaration based upon my own personal knowledge and, if called as a witness in this action, I

would be able to competently testify as to the facts and opinions set forth herein.

3.   ETI is being compensated at the rate of $600 per hour for my work on this case. The

opinions expressed in this declaration are my own, and my compensation is not dependent upon

the substance of these opinions or the outcome of the litigation.

4.   The documents, data and other materials that I relied upon in forming my opinions

are identified throughout my report and in Exhibit 2, attached hereto. In addition, I have relied

upon my educational background and more than 15 years of experience.

III. RESPONSE TO DALEY

Daley is not in a position to evaluate my effectuation of the Snyder methodology because
she does not understand the method, and does not have any familiarity with components of
the analysis

5.   The Daley Report focuses on whether or not Snyder's methodology, and my

implementation of that methodology can be used to determine damages in this case.[1] But Daley

---

[1] *See, generally*, Daley Report.

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is not in a position to evaluate whether my effectuation of the Snyder methodology can

determine damages for a number of reasons.

6.   First, Daley claims to not understand what it is that Snyder has proposed as a

methodology or how I have effectuated that method. When asked if I had literally

operationalized Snyder's method, Daley testified that she did not know.

> Q.   Do you agree or disagree that Mr. Weir's role was to operationalize Mr. Snyder's instructions?
>
> A.   I don't understand honestly what these two were doing, really.[2]

It appears that Daley did not complete all of the investigative work of the methodology that she

wanted to because of the holiday season:

> **So we had questions we wanted answered** so we could try and figure out where it's going wrong. [] **At the end day, I think we might have stopped trying** because the point was to look at the 176. And there was an awful lot of work to do there to look at the account records. And, **as you can recall, it was Christmas and New Years**.[3]

7.   Daley is also not familiar with the software used to conduct the analysis, or the

underlying algorithms.

> Q.   Have you ever used Stata prior to this litigation?
>
> A.   No.
>
> …
>
> A.   I'm not an expert on Stata and I did not personally do the work on Stata in this matter.

---

[2] Daley Deposition, at 199.

[3] Daley Deposition, at 246-247.

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> …

> A.   I'm not familiar with the matchit [name matching] program. I don't know how configurable it is.[4]

8.   Given these issues, it appears that Daley is not in a position to evaluate my effectuation of Snyder's methodology.

Daley criticizes Snyder and myself for using a method that Citibank itself relies upon

9.   Daley is critical of the use prescribed by Snyder of name matches that seek to compare last names.[5] Yet Daley acknowledges that this is the very method that Citibank uses to guard against calling numbers that are no longer in use by Citibank accountholders.

> Citibank subscribes to a service provided by Neustar that assesses a probability "score" that a cellular telephone number is being used by a person with a particular last name. Citibank consults the Neustar scores on a daily basis in an effort to prevent calling cellular numbers that are no longer in use by its account holders.[6]

10.   Daley applauded Citibank's use of this method.

> Q.   Do you have any criticisms of Citibank's use of Neustar?

> A.   Well, I think as a bank that's making calls that are potentially subject to the TCPA, it's good that they're trying -- using the best -- trying the best they can to identify reassigned numbers.[7]

---

[4] Daley Deposition, at 27-28, 224.

[5] *See, e.g.*, Daley Report, at para. 77.

[6] Daley Report, at para. 36.

[7] Daley Deposition, at 8.

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11.   While Snyder's methodology does not call for the use of first name comparisons, there is nothing that would prevent the available technology and program that I have developed from so doing. As I testified at deposition, it is possible to adjust algorithm used to match the names to consider the first names as well as last names.

> Q.   Did you perform any searches specific to just the first name?
>
> A.   Again, I did not do that in this case, but the method would be easily adaptable, since the matching information would be there to look at the first name only and consider as a match any name where the first name matches, but the last name does not.[8]

12.   Daley also references my use of a "score" threshold to determine whether the names are a match.[9] I would note that this is also part of the methodology that Citibank itself uses to try to prevent wrong number calls. As I testified at my deposition, this score threshold is also a flexible part of the methodology that can be adjusted if so required.

> Q.   What is your matching algorithm?
>
> A.   It is part of this data program known as Matchit, which does a bigram analysis of two comparable pieces of text and returns a Jaccard similarity score.
>
> Q.   What would you do with that information?
>
> A.   I would then set a threshold where if the similarity score was above a certain amount, I would deem that as a match of the name, and if it was below a certain amount, I would deem it as a mismatch for that name.
>
> Q.   What were the amounts that you set?
>
> A.   Based upon my prior experience doing this type of matching, I used a threshold of 0.5. The Jaccard score ranges basically like a baseball batting

---

[8] Weir Deposition, at 268.

[9] Daley Report, at para. 76.

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> average, from 0 to 1, and you would never expect matches to all be 1, because what we are trying to do is find, for example, like if you have the middle initial tacked on, we wouldn't want that to kick out a particular name.

> So I set the score at 0.5. The method is adaptable, so you could set that at 0.4, if you wanted to be even more conservative than I have already been.[10]

13.   Below, I will discuss the results of rerunning the Snyder methodology with several changes, including matching by first name.

Daley's claims that TLO data is inaccurate or unreliable are belied by her own long time use of the TLO service

14.   Daley makes a number of unfounded assertions about the accuracy and reliability of the TLO data.[11] These accusations are baseless and self-serving, unfounded, and contradicted by Daley's own findings and conclusions.

15.   It is difficult to reconcile Daley's criticisms of the TLO data with her own long term use of the very same data. Unprompted, Daley notes in her report that:

> [Daley] has decades of experience using TLO, LexisNexis, and other data vendors in [her] capacity as a professional investigator and licensed private detective.[12]

16.   Daley testified at deposition that as of her last review of the state of the marketplace, she turns to TLO to associate people with phone numbers.

> Q.   When was the last time you researched or looked into current state of technology or services that are available as of 2018, let's say, that might facilitate identifying people, associating people with phone numbers?

---

[10] Weir Deposition, at 265-266.

[11] Daley Report, at 153-172.

[12] Daley Report, at para. 72.

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> A.   We do as a general course of business, we're looking at the TLO and LexisNexis data as well as other types of data vendors.[13]

17.   Daley admits that she and her staff use TLO "all the time" and that she herself uses TLO data at least once a month.

> Q.   Since joining [Berkeley Research Group] have you ever personally used TransUnion's TLOxp service, not counting any time where you may have directed someone else to do it, but you personally?
>
> A.   Sure, all the time.
>
> Q.   Okay.
>
> A.   Did it yesterday.
>
> Q.   Was that in connection with this case or another case?
>
> A.   Just in general.
>
> Q.   How frequently? Once a week? Twice a week? Every day?
>
> A.   It -- there isn't an average. It depends upon the need. So I would just say more than not I'm directing other people to pull something in particular and they send the report to me. But I personally use it maybe once a month.[14]

In fact, Daley's employer buys access to every one of the TLO search tools.

> Q.   Can you tell me what search tools you have access through TLOxp?
>
> A.   We have access to everything. We both -- of both batch access as well as the ability to pull individual reports. The individual reports have all the information that they sell.[15]

18.   Daley relied **in this litigation** on TLO data to determine people's identities.

---

[13] Daley Deposition, at 63-64.

[14] Daley Deposition, at 71.

[15] Daley Deposition, at 175.

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Q.   [Y]ou trust TLO's information for the purposes of determining these two people are the same person?

A.   Well, they've got the data that would show [] over time[.][16]

19.   If the TLO data is as inaccurate as Daley claims, why is she paying for a subscription to every one of TLO's search services and using these services "all the time" to provide services to her clients?

Daley cannot identify a single instance where TLO incorrectly identified the mobile status of a sample telephone number

20.   Despite claiming that the TLO data is inaccurate, Daley confirms that, in this litigation, the TLO data correctly identified the mobile status of the telephone numbers that resulted from the Snyder methodology.

Q.   Which numbers in the set of 176 from the sample set were misidentified as cell phones?

A.   I don't know that that -- that they were.[17]

Daley confirms that the TLO data correctly identified the Citibank customer 98% of the time

21.   Daley's criticisms of the accuracy of the TLO data are also belied by other indicia of reliability.

22.   In my deposition, I was asked about the reliability of the TLO data. I noted that this can be estimated vis a vis a company's customer records.

---

[16] Daley Deposition, at 130.

[17] Daley Deposition, at 211.

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> Q.   What percentage accuracy would you attribute to the TransUnion data?
>
> A.   I haven't been asked to identify that precisely, but in other situations where I have looked at similar data, we wind up with situations where I think in greater than 90 percent of contexts the information is shown to be definitively accurate, and then there is additional data where, for example, it shows a new customary user of the phone, itis very likely that the majority of that data is also accurate.
>
> Q.   You said in certain instances 90 percent of the time the data is shown to be definitively accurate?
>
> A.   Correct.
>
> Q.   How?
>
> A.   Again, we have an expectation from a company's record that a number would be associated with a person and then that turns out to be the case in the TLOxp data.[18]

23.   When Daley was asked about this phenomenon, she confirmed that TLO correctly identified Citibank's customer 98% of the time.

> Q.   Okay. Do you know for the 20,000 Citibank customers that were sampled by Mr. Weir, how many were accurately matched by name and number through TransUnion?
>
> A.   I -- oh, it was a really high number. It was like 98 percent, something like that.[19,20]

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[18] Weir Deposition, at 116-117.

[19] Daley Deposition, at 242.

[20] Daley and Defendant assert that TLO failed to return data associated with nearly 7,000 telephone numbers. (*See, e.g.*, Weir Deposition, at 262-263). I have re-checked the TLO bacth data, and confirmed that at least one result was returned for all but 458 out of 20,000 numbers.

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Daley cannot support her claims that TLO is unreliable because she has not tested the data

24.   As a final rejoinder to Daley's claims that TLO data is not accurate and is unreliable, I will note that any such claims from Daley are pure speculation. This is because Daley did not independently test the TLO data for accuracy. Other than the TLO data matching Citibank's records 98% of the time, she is not aware of any other test of the TLO service.

> Q. Okay. Have you ever tried to do, independent of any specific litigation, a test with respect to TransUnion data similar or akin to what you did with Lexis in 2016?
>
> A. No, we have not.
>
> Q. Are you aware of any other independent testing of the TLOxp service?
>
> A. No.[21]

The available date range of the consent change reports is a function of Defendant's spoliation of the consent data--not of Plaintiff's methodology; Plaintiff's method can be run for any specific dates, or re-run without the database

25.   Daley criticizes the Snyder methodology because the consent change reports only contain data from November 2017 onward.[22] The available consent change report data is not a function of Plaintiff's methodology, rather the date range limitation is a function of Defendant's spoliation of the consent data by overwriting the consent data in its databases and dialer systems.

26.   As a practical matter, the Snyder methodology can be run for any specified date range. As an example, the method could be run from the first date of the available consent change data. In effect, the results of the Weir report already reflect such a date range restriction.

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[21] Daley Deposition, at 81-82.

[22] Daley Report, at para. 61.

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Snyder's method only excludes named Plaintiff Revitch because Defendant spoliated its telephone consent data

27.   Daley attempts to impugn the Snyder methodology by noting that it fails to identify named Plaintiff Revitch.[23] But this is not a criticism of the Snyder methodology per se, so much as an indication that where Defendant has spoliated its consent records by overwriting them in its databases and dialer systems, the Snyder method conservatively excludes such calls.

28.   As discussed above, the Snyder method can be limited to a particular date range for which records are available, or can be operationalized without the consent change report data.

29.   Daley claims to have run named Plaintiff Revitch through a TLO search. I have also run this search. When Plaintiff Revitch's number is searched, TLO correctly identifies him as a customary user of the number and does not identify as a customary user Alan Exelrod, the customer that Citibank was intending to reach when it called Revitch.

A number of additional data points can be included in the analysis, though it is not clear that it would be prudent to do so

30.   Daley claims that I should have incorporated a number of additional data points when operationalizing the Snyder methodology, including "last seen" dates and "probability scores" from TLO, and account numbers from Citibank.[24] As I will discuss in greater detail below, it is certainly technically feasible to incorporate such information into the analysis, though Daley is wrong to suggest that inclusion of all of these factors would improve the analysis.

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[23] Daley Report, at para. 66.

[24] Daley report, at paras. 80, 91, and 152.

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"Last Seen" Dates

31. The TLO data typically returns both a "first seen" and "last seen" date for each person associated with a telephone number. The "first seen" date will be a date on or after a person becomes associated with a telephone number. The first seen date is generated by new data being associated with a number. In the manner in which I have used the "first seen" date, the analysis is conservative, because a new customary user may become associated with a telephone number before the "first seen" date reported by TLO. The "last seen" date will operate in the reverse, with the date potentially being reported after the customary user has stopped being associated with that telephone number. This is because companies, like Citibank, often maintain associations between a customary user and a telephone number after that association has come to an end.[25] In effect, rather than being based on new data, the "last seen" date can be populated with stale data.

32. I explained my preference for using the "first seen" data in my deposition.

> Q.   And if a later first-seen date contradicted with a date range for another person, how did you deal with that contradiction?
>
> A.   When you are looking at the last-seen date?
>
> Q.   Yes.
>
> A.   Based upon my prior experience, I have relied upon the first-seen dates because it would be very difficult for someone to become associated with a phone number before they actually were associated with the phone number.
>
> So let's say you are about to go get a cell phone, TransUnion is not going to know what number you are going to get in advance. So I believe the most accurate information about the most current customary user is the first-seen date data, which is what I used, and in the conservative maximum first-date fashion that we have discussed.

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[25] Citibank and Daley cannot rebut this. Daley Deposition, at 140.

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> Q.   Have you seen an instance where the first-seen date and -- what is the last-seen date?
>
> A.   Again, because of the way that I use the data, I haven't given full consideration to the last-seen date and have been warned that that date can reflect basically ongoing apparent affiliation with a number when the number is no longer affiliated with a person.
>
> So, for example, you go online and you sign up for a utility and you discontinue your cell phone, but you never changed the number associated with the account, and so, again, I rely upon the first-seen dates since those are going to be more reliable indicia of when a new person is affiliated with a number than the last seen dates. [26]

33.   Daley curiously insists that it would be better to ignore the "first seen" data in favor of the "last seen" dates. When asked about the accuracy of these "last seen" dates, Daley was clear: "I do not believe that these dates are accurate, just period, under any circumstances," and that it was "[her] personal view and [her] opinion that those dates are inaccurate in general and unreliable."[27]

34.   Daley elsewhere notes that one of the sources of TLO data are banks (including Citibank!) that maintain outdated data as to phone number associations and that last seen dates can therefore be out of date precisely because companies like Citibank are unaware of when numbers become reassigned.

> Because TLO uses credit card applications as a means to associate a person with a cellular number it is likely drawing from the very same data as Citibank (its account holder data) to determine if a cellular number is associated with a person. Because neither Citibank or TLO is informed when numbers are reassigned they both have outdated information for some people.[28]

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[26] Weir Deposition, at 275-276, 326.

[27] Daley Deposition, at 108-109.

[28] Daley Report, at para. 80.

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TLO Probability Scores

35.   Daley also suggests that I should have considered what she describes as "probability of ownership" scores.   TLO does include a score associated with each record, but it is called "PhoneScore" and is not called "probability of ownership."   These scores do not indicate probabilities in the way people are accustomed to, and I was recommended by TransUnion not to use the scores in the manner proposed by Daley.

36.   First off, Daley admits that she is not an expert in probability:

> Q.   Do you view yourself as an expert in the area of probability?
>
> A.   You mean from a statistical standpoint? No.[29]

Her lack of expertise was confirmed when she testified that she did not know whether the probability of something could be more than 100%. She also believes that, when taken together the probability of all possible outcomes could exceed 100%.[30] In the study of probabilities, something that is certain cannot have a probability of more than 100%--if it is raining outside, the probability that it is raining is 100%. And if there are various possible uncertain outcomes, together, their probabilities can equal no more than 100%. If there is a 70% chance of rain, all other possible weather outcomes cannot have a probability greater than 30%. You cannot have a 70% chance of rain **and** a 70% chance of sun.

37.   It is precisely this lack of expertise that leads Daley to misunderstand the PhoneScore from TLO. A quick examination of the PhoneScore data indicates that they cannot be probabilities in the way that Daley claims.

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[29] Daley Deposition, at 23.

[30] Daley Deposition, at 25-26.

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38.   The very first entry in the TLO data is for telephone number: 623-760-5291. There are five entries from TLO in this data: 87.8, 66.3, 87.8, 1, and 87.8. Together, these add up to 330 -- an impossibility in probability measurement. Moreover, TLO gives Justin Miller a PhoneScore of both 87.8% and 1% which is also not a realistic outcome in probability measurement.

39.   The document that Daley relies on to suggest that there is a probability of ownership score does not reference the "PhoneScore" in the TLO data at issue in this litigation.

40.   Daley herself admits that the alleged probability of ownership is a poor measure of the reliability of the phone data.[31] She states that she hersel "wouldn't use the probability score."[32]

41.   Even though she has used TLO data for decades, she has **never** made use of the "probability" score.

> Q.   Apart from anything you did in connection with this case, have you ever used TransUnion's probability of ownership score
>
> A.   I don't think so.[33]

42.   As such, I stand by the Snyder's original choice to not include the PhoneScore in the analysis. However, I would assure the Court that, if it were deemed possible it would be feasible to include this data in the analysis.

Account Data

43.   Daley Claims that Snyder's methodology is flawed because it does not account for

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[31] Daley Deposition, at 142.

[32] Daley Deposition, at 145.

[33] Daley Deposition, at 146.

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44.   the fact that individuals may have multiple accounts with Citibank with different levels of consent for each account.[34]

45.   This allegation is contradicted by Daley's own testimony as to how Citibank manages consent across accounts.

> Significantly, Citibank uses a TCPA compliance mechanism that automatically updates some **telephone numbers that appear in multiple accounts** to conform them to the lowest common level of consent.[35]

At deposition, Daley confirmed that the lowest common level of consent that Citibank would be conforming across multiple accounts would in fact be "no consent":

> But in terms of what I meant when I drafted it, the lowest level of consent would be "don't call me, you have no consent."
>
> …
>
> So if somebody says "do not call me" or "this is a bad number," that means no consent. No consent would be the lowest level of consent.[36]

46.   In addition, the customer records produced to Plaintiff only contained redacted account numbers.

47.   While it sounds like Daley has raised yet another red herring, if Citibank has not destroyed its account number data, it would be possible to adjust the methodology to cross reference the account numbers from the consent change reports against the account numbers in the CDRs.

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[34] Daley Report, at paras. 18 and 102.

[35] Daley Report, at para. 102.

[36] Daley Deposition, at 155-156.

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Customer account records also contain errors

48.   Daley makes the case that only a manual review of customer account records can be used to fully understand whether a Citibank customer is a user of a phone and has given consent. But Daley herself admits that these records also contain errors--including the one that led to calls being placed to named Plaintiff Revitch.

> Q.   I mean, is it -- is it -- is it possible that incorrect wrong number codes are also reflected in the account level notes?
>
> A.   Yeah, I think -- I think that is certainly possible because you're dealing with human error.
>
> …
>
> A.   I'd have to look at the dates on the account records, because I recall that there were conversations where Mr. Revitch said "stop calling me," and he was called again because there was an error by the customer service agent where it appears that she should have called it a bad number and didn't.[37]

TLO's disclaimer of a warranty is a legal protection not a statement of the accuracy of the data

49.   Daley argues that because TLO does not warrant the accuracy of its data, the data must therefore be inaccurate.[38] The warranty that Daley references is deep in the legal language of Trans Union's terms and conditions included by reference to the Trans Union website. This lack of warranty does not speak to, or directly measure the actual accuracy of the underlying data -- it is an attempt by Trans Union to limit their liability. Indeed, if the data were so demonstrably inaccurate, it is hard to believe that customers, including Daley herself, would continue to purchase it.

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[37] Daley Deposition, at 113, 90-91.

[38] Daley Report, at para. 176.

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50.   Daley provides as a contrast to the "legalese" of the terms and conditions, a public facing document that Trans Union uses to sell its services. Daley's document from Trans Union represents to customers:

- TransUnion helps make compliance with the Telephone Consumer Protection Act (TCPA) and verification of your contact data easier;

- With real-time access to carrier data, your organization can quickly confirm the line type and verify ownership of a given phone number;

- Reduce and limit calls to canceled or suspended numbers;

- Verify number ownership of the consenting party;

- Track ported numbers;

- Validate phone type; and

- Improve the accuracy of customer contact details.

51.   This public facing document certainly does not decry the accuracy of the underlying data.

My access to data from TLO is not "the lowest level"

52.   Daley seeks to impugn my use of the TLO data by suggesting that I have "the lowest level of TLO's subscription service."[39] This is a pecuniary sleight of hand. I say pecuniary because what Daley is describing is **not** the availability of TLO search tools or the quality of the TLO data available to me, but rather the contractual minimum financial commitment that my firm has made to TLO.[40]

---

[39] Daley Report, at 186.

[40] "Q. Let's go to paragraph 186. [] And I'm just focused on the first sentence. I just want to know what you meant when you said Mr. Weir has the lowest level of TLO subscription service? A.   25 bucks a price." Daley Deposition, at 171-172.

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53.   While it is conceivable that my firm could save money by committing to a higher level of use, the monthly contractual minimum with TLO does not impact the level of services available through my subscription or the quality of the data provided. I have access to the same batch and individual reports that Daley does (and which she notes includes all of the available TLO search options).

Daley/Defendant are wrong when they claim that TLO cannot identify my cell phone, and Daley did not care to check

54.   Daley asserts that TLO does not correctly identify my cell phone number. This is incorrect. In advance of my deposition, Daley herself erroneously identified a number that she believed to be my cell phone, but was not. I provided my cell phone number on the deposition record and Daley could have easily checked to see if TLO correctly identified me as the customary user of that number.

55.   But Daley did not ever conduct that check. Rather than report the truth, just like her work being interrupted by the holidays, she opted to skip the work, report a falsehood, and not care about it.

> Q.   So you ran his name prior to the deposition, but after the deposition of Mr. Weir you didn't run any additional reports?
>
> A.   No, uh-uh.
>
> Q.   And is that because you believed you would not get any additional information other than what you had already obtained from the first report?
>
> A.   I didn't care.[41]

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[41] Daley Deposition, at 205.

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56. I have run my cell phone number through the TLO batch process, and the service
correctly identifies me as the customary user of that phone number.

**Daley concedes that she has no idea whether the calls identified by the Snyder methodology
were or were not wrong number calls**

57. Daley makes numerous assertions, as discussed above, about the Snyder
methodology, and claims that, after she make several (dubious) changes, she discovers zero
plaintiffs. But this "analysis" is not as it appears, because Daley does not know who received
any of the calls and does not believe her own methods can identify wrong number calls.

> Q.   And is it your opinion that the overwhelming majority of calls that were
> marked as wrong numbers appeared to have been made to accountholders?
>
> A.   I have no idea who actually received those calls. ... I don't know who
> received those calls.[42]

58. As part of her "analysis," Daley claims to associate certain individuals with each of
the 176 telephone numbers identified by the Snyder methodology. But Daley never determined
whether any of those individuals did or did not received a wrong number call:

> Q.   But my question is: Did you make the determination whether or not
> Carlos Davila received a wrong number call from Citibank?
>
> A.   Nobody made that determination. ...
>
> Q.   A moment ago when you said nobody made that determination, were
> you referring just to Carlos Davila specifically or all the names on   itemized
> on Exhibit, 63?
>
> A.   I think all of them.[43]

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[42] Daley Deposition, at 124.

[43] Daley Deposition, at 260.

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59.   Daley also testified, "I certainly have not been retained to say that any individual consented in any particular situation for any particular call."[44]

60.   Daley also further disclaims having made any affirmative determination as to whether any particular call was a wrong number call. In her report, Daley notes that Citibank has "outdated information for some people" because it is not informed when numbers are reassigned, and that "[i]t is impossible to determine which numbers are subject to this problem."[45]

61.   Unlike Snyder, Daley has not identified a methodology to determine who was called and whether they received a wrong number call. Since Daley believes that it is impossible to make such a determination, her analysis suggesting that there are no class members or wrong number calls must be taken for what it is: pure speculation.

Update of analysis

62.   I have been asked to rerun my analysis with several changes, both to demonstrate that my operationalization of the Snyder methodology can incorporate the changes discussed above, and to report the results of such changes. Specifically, I have been asked to:

- Include dialer names that reference "precision";

- Allow for matches based upon first names only;

- Allow for matches when the Jaccard score is greater than .4 instead of .5;

- Eliminate Citibank records where the customer name is the name of a business;

- Confirm that all resulting calls do not have the following coding:

    - ov_call_connected_time == blank entry;

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[44] Daley Deposition, at 22.

[45] Daley Report, at para. 80.

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- o dialer_disposition == blank entry;

- o response_status == "rr";

- o dialer_name == "unknown".

63. I have rerun my analysis of the 20,000 number sample using the above criteria.

64. In this sample of 20,000 numbers, there were 8,448 calls placed to 133 unique telephone numbers that meet the criteria identified above. The vast majority of these numbers received multiple calls. If that sample relationship holds, there would be approximately 506,880 calls to 7,980 unique telephone numbers.

65. The sample relationship and estimates described above, as well as in my opening declaration, reflects calls to phone numbers identified in Citibank's Contact Utilities Database (recorded since November 2017).

IV. RESERVATION OF RIGHTS

My testimony is based upon the information and data presently available to me. I understand that discovery is ongoing. Additional, different and/or updated data may be obtained in advance of trial. I therefore reserve the right to amend or modify my testimony, and anticipate supplementing this testimony when such data becomes available.

VERIFICATION

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief, and that this declaration was executed at Koloa, Hawaii, this 1st day of February, 2019.

_____

Colin B. Weir

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Exhibit 1

Statement of Qualifications
of

COLIN B. WEIR

Statement of Qualifications

COLIN B. WEIR

Colin B. Weir is Vice President at Economics and Technology, Inc. Mr. Weir conducts economic, statistical, and regulatory research and analysis, and testifies as an expert witness. Mr. Weir's work involves econometric and statistical analysis, multiple regression, surveys, statistical sampling, micro- and macroeconomic modeling, accounting and other economic analysis. Such analysis often involves analysis of databases, call detail records, and other voluminous business records. Mr. Weir is familiar with common statistical and econometric software packages such as STATA and Sawtooth Software. Mr. Weir assists with analysis of economic, statistical and other evidence; and preparation for depositions, trial and oral examinations. Mr. Weir has provided expert testimony before federal and state courts, the FCC, and state regulatory commissions, and has contributed research and analysis to numerous ETI publications and testimony at the state, federal, and international levels. Prior to joining ETI, Mr. Weir worked at Stop and Shop Supermarkets as a cash department head, grocery/receiving clerk, and price-file maintenance head.

Mr. Weir's experience includes work on a variety of issues, including: economic harm and damage calculation; liquidated damages provisions; lost profits; false claims; diminution in value; merger/antitrust analysis; Early Termination Fees (ETFs); Late Fees; determination of Federal Excise Tax burden; and development of macroeconomic analyses quantifying the economic impact of corporate actions upon the US economy and job markets.

Mr. Weir has conducted research and analysis in numerous litigation and regulatory matters on behalf of corporate, government and individual clients, including AT&T, MTS Allstream (Canada), The US Department of Justice, Office of the Attorney General of Illinois, Pennsylvania Department of Revenue, Thomas v. Global Vision, (class action litigation, Superior Court, County of Alameda), Ayyad v. Sprint (class action litigation, Superior Court, County of Alameda), Forcellati v. Hylands (class action, U.S. District Court, Central District of California), and Ebin v. Kangadis Foods (class action, U.S. District Court, Southern District of New York).

Mr. Weir holds an MBA with honors from Northeastern University. He also holds a Bachelor of Arts degree *cum laude* in Business Economics from The College of Wooster.

Mr. Weir is a member of the Boston Economic Club, a business member of the Boston Bar Association, serves on the Board of Trustees of the Waring School, and serves as the comptroller for the Sybaris Investment Partnership.

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Statement of Qualifications – Colin B. Weir

Publications and Testimony of Colin B. Weir

Mr. Weir has co-authored the following:

Interoperability and Spectrum Efficiency: Achieving a Competitive Outcome in the US Wireless Market (with Lee L. Selwyn) Economics and Technology, Inc., prepared on behalf of United States Cellular Corporation, July 2012.

The Price Cap LECs' "Broadband Connectivity Plan": Protecting Their Past, Hijacking the Nation's Future (with Lee L. Selwyn and Helen E. Golding) Economics and Technology, Inc., prepared on behalf of United States Cellular Corporation, September 2011.

Regulation, Investment and Jobs: How Regulation of Wholesale Markets Can Stimulate Private Sector Broadband Investment and Create Jobs (with Lee L. Selwyn, Susan M. Gately, and Helen E. Golding) Economics and Technology, Inc., prepared on behalf of Cbeyond, Inc., Covad Communications Company, Integra Telecom, Inc., PAETEC Holding Corp, and tw telecom inc., February 2010.

Revisiting Us Broadband Policy: How Re-regulation of Wholesale Services Will Encourage Investment and Stimulate Competition and Innovation in Enterprise Broadband Markets, (with Lee L. Selwyn, Susan M. Gately, and Helen E. Golding) Economics and Technology, Inc., prepared on behalf of MTS Allstream, February 2010.

Longstanding Regulatory Tools Confirm BOC Market Power: A Defense of ARMIS (with Lee L. Selwyn, Susan M. Gately, and Helen E. Golding) Economics and Technology, Inc., prepared on behalf of the AdHoc Telecommunications Users Committee, January 2010.

Choosing Broadband Competition over Unconstrained Incumbent Market Power: A Response to Bell and TELUS (with Lee L. Selwyn, Susan M. Gately, and Helen E. Golding) Economics and Technology, Inc., prepared on behalf of MTS Allstream, April 2009.

The Role of Regulation in a Competitive Telecom Environment: How Smart Regulation of Essential Wholesale Facilities Stimulates Investment and Promotes Competition (with Lee L. Selwyn, Susan M. Gately, and Helen E. Golding) Economics and Technology, Inc., prepared on behalf of MTS Allstream, March 2009.

Special Access Overpricing and the US Economy: How Unchecked RBOC Market Power is Costing US Jobs and Impairing US Competitiveness (with Lee L. Selwyn, Susan M. Gately, and Helen E. Golding) Economics and Technology, Inc., prepared on behalf of the AdHoc Telecommunications Users Committee, August 2007.

The AWS Spectrum Auction: A One-Time Opportunity to Introduce Real Competition for Wireless Services in Canada (with Lee L. Selwyn and Helen E. Golding) Economics and Technology, Inc., prepared on behalf of MTS Allstream, June 2007.

Comparison of Wireless Service Price Levels in the US and Canada (with Lee L. Selwyn) Economics and Technology, Inc., prepared on behalf of MTS Allstream, May 2007.

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Statement of Qualifications – Colin B. Weir

Hold the Phone! Debunking the Myth of Intermodal Alternatives for Business Telecom Users In New York (with Susan M. Gately and Lee L. Selwyn) Economics and Technology, Inc., prepared for the UNE-L CLEC Coalition, August 2005.

Mr. Weir has submitted the following testimony:

United States District Court, Northern District of California, Debbie Krommenhock and Stephen Hadley, on behalf of themselves, all others similarly situated, and the general public, v. Post Foods, LLC, Case No. 3:16-cv-04958-WHO (JSC), on behalf of Law Offices of Jack Fitzgerald, PC, Declaration submitted January 11, 2019.

United States District Court, Southern District of New York, Leona Hunter and Anne Marie Villa, on behalf of themselves and all others similarly situated, v. Time Warner Cable Inc., Case No. 15-cv-06445-JPO (JLC), on behalf of Bursor & Fisher, P.A. Declaration submitted on November 30, 2018; Deposition on December 21, 2018.

United States District Court, Northern District of California, *Jeremiah Revitch, on Behalf of Himself and all Others Similarly Situated, v. Citibank, N.A.*, Case No. 17-cv-06907-JCS, on behalf of Bursor & Fisher, P.A. Declaration submitted on November 27, 2018; Deposition on December 28, 2018.

United States District Court, Central District of California, *Kaylee Browning and Sarah Basile, on behalf of themselves and all others similarly situated, v. Unilever United States Inc.*, Case No. 8:16-cv-02210, on behalf of Bursor & Fisher, P.A., Declaration submitted on October 22, 2018; Deposition on November 1, 2018; Reply Declaration submitted on November 23, 2018.

United States District Court, Southern District of New York, *Lori Canale, individually, and on behalf of all others similarly situated, v. Colgate-Palmolive Co.,* Case No. 7:16-CV-03308-CS, on behalf of Bursor & Fisher, P.A., Declaration submitted on September 19, 2018.

Superior Court for the State of California, In and for the County of San Francisco, *Michelle Gyorke-Takatri and Katie Silver on behalf of themselves and all others similarly situated, v. Nestlé USA, Inc. and Gerber Products Company,* Case No. CGC 15-546850, on behalf of Stanley Law Group, Declaration submitted on September 7, 2018.

United States District Court, Northern District of Illinois, Eastern Division, *Ryan Porter and Haarin Kwon, individually and on behalf of all others similarly situated, NBTY, Inc., United States Nutrition Inc., Healthwatchers (DE), Inc., and MET-RX Nutrition, Inc*., Case No. 15-cv-11459, on behalf of Bursor & Fisher, P.A., Declaration submitted on August 15, 2018; Deposition on October 12, 2018; Reply Declaration on December 21, 2018.

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Superior Court of the State of California, For The County of San Francisco, *Deanna Gastelum and Heather Bryden individually and on behalf of all other persons similarly situated, v. Frontier California Inc.*, Case No. CGC-11-511467, on behalf of Bramson, Plutzik, Mahler and Birkhaeuser; Declaration submitted on July 31, 2018, Declaration submitted August 13, 2018.

United States District Court, For the Southern District of New York, *Suzanna Bowling, individually and on behalf of all others similarly situated, v. Johnson & Johnson and McNeil Nutritionals, LLC*, Case No. 1:17-cv-03982-AJN, on behalf of Bursor & Fisher, P.A., Declaration submitted on July 30, 2018, Deposition on September 6, 2018; Reply Declaration submitted on November 16, 2018.

United States District Court, Southern District of New York, *Anne De Lacour, Andrea Wright, and Loree Moran individually and on behalf of all others similarly situated, v. Colgate-Palmolive Co., and Tom's of Maine Inc.*, Case No. 1:16-cv-08364-RA, on behalf of Bursor & Fisher, P.A., Declaration submitted on June 15, 2018; Deposition on August 28, 2018; Reply Declaration submitted on November 21, 2018.

United States District Court, Northern District of California, San Francisco Division, *In re: Chrysler-Dodge-Jeep EcoDiesel® Marketing, Sales Practices, and Products Liability Litigation Dorun Bali, et al., v. Fiat Chrysler Automobiles N.V., FCA US LLC, Sergio Marchionne, VM Motori S.p.A., VM North America, Inc., Robert Bosch GmbH, Robert Bosch LLC, and Volkmar Denner*, Case No. MDL 2777-EMC, on behalf of Lieff Cabraser Heimann & Bernstein, Declaration submitted on June 6, 2018, Deposition on July 18, 2018, Reply Declaration submitted on September 4, 2018.

United States District Court, Northern District of California, *Stephen Hadley, on behalf of himself, all others similarly situated, and the general public, v. Kellogg Sales Company*, Case No. 5:16-cv-04955-LHK-HRL, on behalf of Law Offices of Jack Fitzgerald, PC, Declaration submitted April 30, 2018, Deposition on May 31, 2018; Reply Declaration submitted June 25, 2018; Declaration submitted on September 20, 2018; Deposition on September 28, 2018.

United States District Court, Northern District of Illinois, Eastern Division, *Teresa Elward, Dennis Keesler, Leasa Brittenham, Kathy Beck and Nathaniel Beck, Angelia East, Sarah LaVergne, Tony And Lauren Fitzgerald, Gregory Gray, Bethany Williams, John McLaughlin, Stacy Cisco, and William Ferguson and Cheryl Ferguson, individually and on behalf of all others similarly situated, v. Electrolux Home Products, Inc.*, Case No. 1:15-cv-09882-JZL, on behalf of Greg Coleman Law, Declaration submitted April 20, 2018; Reply Declaration submitted on July 13, 2018; Deposition on August 17, 2018.

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United States District Court for the Northern District of California, *Jackie Fitzhenry-Russell, an individual, on behalf of herself, the general public and those similarly situated v. The Coca Cola Company, and Does 1-50*, Case No. 5:17-CV-00603-EJD, on behalf of Gutride Safier, LLP, Declaration submitted April 16, 2018; Deposition on October 3, 2018.

United States District Court for the Southern District of New York, *Josephine James Edwards, individually and on behalf of all others similarly situated, v. Hearst Communications, Inc.*, Case No. 15-cv-09279-AT, on behalf of Bursor & Fisher, P.A., Declaration submitted April 16, 2018; Deposition on June 7, 2018.

United States District Court, Northern District of California, *Jackie Fitzhenry-Russell, Robin Dale, and Gegham Margaryan, as individuals, on behalf of themselves, the general public and those similarly situated, v. Dr. Pepper Snapple Group, Inc., Dr Pepper/Seven Up, Inc., and Does 1-50,* Case No. 5:17-cv-00564-NC (lead); Case No. 5:17-cv-02341-NC (consolidated); Case No. 5:17-cv-04435-NC (consolidated)*,* on behalf of Gutride Safier, LLP, Declaration submitted April 9, 2018; Deposition on April 19, 2018; Reply Declaration submitted June 6, 2018; Supplemental Declaration submitted on November 19, 2018.

United States District Court for the Western District of Texas, Austin Division, *Sylvia Morris, on behalf of herself and all others similarly situated, v. Modernize Inc.*, Case No. 17:-cv-963-SS, on behalf of Bursor & Fisher, P.A., Declaration submitted March 13, 2018; Deposition on June 14, 2018.

United States District Court, Northern District of California, San Jose Division, *In re: Arris Cable Modem Consumer Litigation*, Case No. 17-cv-1834-LHK, on behalf of Schubert Jonckheer & Kolbe, Declaration submitted on March 9, 2018; Reply Declaration submitted April 9, 2018; Deposition on April 11, 2018; Declaration submitted June 13, 2018; Declaration submitted January 31, 2019.

United States District Court, Southern District of New York, *In re: Amla Litigation*, Case No. 1:16-cv-06593-JSR, on behalf of Levi & Korsinsky LLP, Declaration submitted on March 5, 2018; Declaration submitted November 14, 2018; Deposition on November 28, 2018.

United States District Court, Eastern District of Michigan, *Toby Schechner, Barbara Barnes, Laura Bliss, Kathleen Jordan, Kathryn Limpede, Louise Miljenovic, Candace Oliarny, Beverly Simmons, Richard Thome And Mary Ellen Thome, V. Whirlpool Corporation,* Case No. 16-cv-12409-SJM, on behalf of Robbins Geller Rudman & Dowd, LLP, Declaration submitted February 12, 2018; Deposition on May 15, 2018; Reply Declaration submitted May 17, 2018.

United States District Court, Southern District of California, *Jose Conde, et al., v. Sensa, et al.*, Case No. 14-cv-51 JLS (WVG), on behalf of Bursor & Fisher, P.A., Declaration submitted February 6, 2018.

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United States District Court, Northern District Of Illinois, Eastern Division, *Angel Bakov, Julie Herrera, and Kinaya Hewlett, individually and on behalf of all others similarly situated, v.Consolidated World Travel, Inc. d/b/a Holiday Cruise Line, a Florida corporation,* Case No. 15-cv-02980-HDL SEC, on behalf of Bursor & Fisher, P.A., Declaration submitted February 6, 2018; Deposition on April 25, 2018.

United States District Court, Northern District of Illinois, *Jennifer Beardsall, Daniel Brown, Jennifer Carlsson, Deborah Cartnick, Amy Connor-Slaybaugh, Phyllis Czapski, Raelee Dallacqua, Autumn Dean, Skye Doucette, Christopher Draus, Gerald Gordon, Alexandra Groffsky, Emma Groffsky, Joyce Ivy, La Tanya James, Michelle Jessop, Joy Judge, Kathy Mellody, Susan Nazari, Megan Norsworthy, Deborah Ostrander, Martina Osley, Dana Phillips, Thomas Ramon, Jr., Nancy Reeves, Matthew Robertson, Shelley Waitzman, Jamilla Wang, and Amber Wimberly, Individually and on Behalf of All Others Similarly Situated, v. CVS Pharmacy, Inc., Target Corporation, Walgreen Co., Wal-Mart Stores, Inc., and Fruit of the Earth, Inc.*, Case No. 1:16-cv-06103, on behalf of Greg Coleman Law, Declaration submitted December 22, 2017; Reply Declaration on May 4, 2018.

United States District Court, Southern District of New York, *Jaish Markos, individually and on behalf of all others similarly situated, v. Russell Brands, LLC*, Case No. 16-CV-04362(CS), on behalf of The Sultzer Law Group, Declaration submitted on December 1, 2017, Deposition on January 4, 2018.

United States District Court, Northern District of California, *Siera Strumlauf, Benjamin Robles, and Brittany Crittenden, individually and on behalf of all others similarly situated, v. Starbucks Corporation,* Case No. 16-CV-01306-YGR, on behalf of Bursor & Fisher, P.A., Declaration submitted on October 31, 2017, Deposition on December 13, 2017.

United States District Court, Southern District of California, *Sheila Dashnaw, William Meier, and Sherryl Jones, individually, and on behalf of all others similarly situated, v. New Balance Athletics, Inc., a corporation; and DOES 1 through 50, inclusive,* Case No. 3:17-cv-00159-L-JLB, on Behalf of The Wand Law Firm, Declaration submitted on September 8, 2017; Deposition on October 5, 2017; Rebuttal Declaration submitted December 11, 2017.

United States District Court, Central District of California, *Veronica Brenner, on behalf of herself and all others similarly situated, v. Procter & Gamble Co.*, Case No. 8:16-1093-JLS-JCG, on behalf of Bursor & Fisher, P.A., Declaration submitted September 5, 2017; Deposition on October 10, 2016.

United States District Court, Eastern District of California, *Joann Martinelli, individually and on behalf of all others similarly situated, v. Johnson & Johnson And McNeil Nutritionals, LLC*, Case No. 2:15-cv-01733-MCE-DB, on behalf of Bursor & Fisher, P.A., Declaration submitted August 28, 2017, Deposition on December 20, 2017; Reply Declaration submitted on January 5, 2018.

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United States District Court, Northern District of California, San Francisco Division, *Martin Schneider, Sarah Deigert, Laurie Reese, Theresa Gamage, Tiffanie Zangwill, and Nadia Parikka, Individually and on Behalf of All Others Similarly Situated, v. Chipotle Mexican Grill, Inc.*, Case No. 3:16-cv-02200-HSG, on behalf of Kaplan Fox & Kilsheimer LLP, Declaration submitted August 11, 2017; Deposition on September 22, 2017.

United States District Court, Southern District of Ohio, *Tom Kondash, on behalf of himself and all others similarly situated, v. Kia Motors America, Inc., and Kia Motors Corporation*, Case No. 1:15-cv-00506-SJD, on behalf of Gibbs Law Group, LLP, Declaration submitted July 10, 2017, Deposition on November 29, 2017.

United States District Court, Northern District of Illinois, Eastern Division, *Ryan Porter and Haarin Kwon, individually and on behalf of all others similarly situated, v. NBTY, Inc., United States Nutrition Inc., Healthwatchers (DE), Inc., and MET-RX Nutrition, Inc.*, Case No. 15-cv-11459, on behalf of Bursor & Fisher, P.A., Settlement Declaration submitted June 22, 2017; Declaration submitted on August 15, 2018; Deposition on October 12, 2018.

United States District Court, Northern District of California, *Sandra McMillion, Jessica Adekoya And Ignacio Perez, on Behalf of Themselves and all Others Similarly Situated, v. Rash Curtis & Associates*, Case No. 16-cv-03396-YGR, on behalf of Bursor & Fisher, P.A., Declaration submitted May 30, 2017, Declaration submitted August 25, 2017, Declaration submitted on October 16, 2017; Declaration submitted on August 10, 2018; Declaration submitted on November 6, 2018; Declaration submitted on November 12, 2018; Deposition on December 11, 2018.

United States District Court, Northern District of California, *Vincent D. Mullins, et al., v. Premier Nutrition Corporation,* Case No. 13-cv-01271-RS, on behalf of Blood, Hurst, & O'Reardon, LLP, Reply Declaration submitted May 19, 2017; Deposition on July 20, 2017.

United States District Court, Southern District of California, *Preston Jones and Shirin Delalat, on behalf of themselves, all others similarly situated, and the general public, v. Nutiva Inc.*, Case No. 16-cv-00711 HSG, on behalf of Law Offices of Jack Fitzgerald, PC, Declaration submitted May 9, 2016; Deposition on August 23, 2017; Reply Declaration submitted January 12, 2018; Reply Declaration submitted March 2, 2018.

United States District Court, Central District of California, Southern Division, *Billy Glenn, Kathy Warburton, Kim Fama, and Corinne Kane, on behalf of themselves and all others similarly situated, v. Hyundai Motor America And Hyundai Motor Company*, Case No. 15-cv-02052-DOC-KES, on behalf of Gibbs Law Group, LLP, Declaration submitted May 1, 2017; Deposition on July 27, 2017; Reply Declaration submitted on October 2, 2017; Reply Declaration submitted on October 6, 2017; Declaration submitted on March 23, 2018.

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United States District Court, Southern District of California, *Sherry Hunter, on behalf of herself, all others similarly situated, and the general public, v. Nature's Way Products, LLC, and Schwabe North America, Inc.,* Case No. 3:16-cv-00532-WQH-BLM, on behalf of Law offices of Jack Fitzgerald, PC, Declaration submitted March 24, 2017; Reply Declaration submitted May 26, 2017; Reply Declaration submitted on July 11, 2017.

United States District Court, Southern District Of New York, *Joanne Hart, and Sandra Bueno, on behalf of themselves and all others similarly situated, v. BHH, LLC d/b/a Bell + Howell and Van Hauser LLC*, Case No. 1:15-cv-04804-WHP, on behalf of Bursor & Fisher, P.A., Declaration submitted March 16, 2017; Deposition on January 10, 2018; Supplemental Declaration submitted January 30, 2018; Declaration submitted on March 2, 2018; Supplemental Declaration submitted on March 30, 2018; Supplemental Declaration submitted on November 26, 2018; Deposition on December 20, 2018.

United States District Court, Eastern District Of New York, Brooklyn Division, *Reply All Corp., v. Gimlet Media, Inc.,* Case No. 15-cv-04950-WFK-PK, on behalf of Wolf, Greenfield & Sacks, P.C., Declaration submitted March 15, 2017; Deposition on April 26, 2017.

United States District Court, Northern District of California, *James P. Brickman, individually and as a representative of all others similarly situated, v. Fitbit, Inc.*, Case No. 3:15-cv-02077-JD, on behalf of Dworken & Bernstein LPA, Declaration submitted February 28, 2017; Deposition on March 8, 2017.

United States District Court, Northern District of California, *Jamie Pettit, an individual, on behalf of herself, the general public and those similarly situated, v. Procter & Gamble Company; and Does 1 Through 50*, Case No. 15-cv-02150-RGS, on behalf of Gutride Safier LLP, Declaration submitted February 14, 2017; Deposition on March 3, 2017; Reply Declaration submitted May 11, 2017.

United States District Court, Southern District of New York, *Alan Gulkis, individually and on behalf of all others similarly situated, Zicam LLC and Matrixx Initiatives, Inc.*, Case No. 7:15-cv-09843-CS, on behalf of Bursor & Fisher, P.A., Declaration submitted on February 8, 2017; Deposition on July 14, 2017.

United States District Court, Central District of California, *Elisabeth Martin, on behalf of herself, all others similarly situated, and the general public, v. Monsanto Company*, Case No. 16-02168-JFW (SPx), on behalf of the Law Office of Jack Fitzgerald, PC, Declaration submitted February 6, 2017; Deposition on February 9, 2017; Reply Declaration on February 27, 2017.

United States District Court, Southern District of New York, *Walt Famular, on behalf of himself and all others similarly situated, v. Whirlpool Corporation*, Case No. 16-cv-00944, on behalf of Bursor & Fisher, P.A., Declaration submitted February 3, 2017, Deposition on August 15, 2017, Rebuttal Declaration on March 20, 2018.

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United States District Court, Central District of California, *In re: 5-Hour Energy Marketing and Sales Practices Litigation*, Case No. 2:13-ml-02438 PSG, on behalf of Bursor & Fisher, P.A., Declaration submitted September 26, 2016; Reply Declaration submitted October 14, 2016; Deposition on October 27, 2016; Declaration submitted on December 22, 2016; Rebuttal Declaration submitted on March 15, 2017.

United States District Court, Southern District of Florida, *Benjamin Hankinson, James Guerra, Jeanette Gandolfo, Lisa Palmer, Donald Anderson, Catherine Long, and Lisa Prihoda, individually and on behalf of others similarly situated, v. R.T.G. Furniture Corp., d/b/a Rooms to Go, RTG America, LLC, The Jeffrey Seaman 2009 Annuity Trust, RTG Furniture Corp. of Georgia, d/b/a Rooms to Go, Rooms to Go North Carolina Corp., d/b/a Rooms to Go, RTG Furniture of Texas, L.P., d/b/a Rooms to Go, RTG Texas Holdings, Inc., and R.T.G. Furniture Corp. of Texas*, Case No. 9:15-cv-81139-COHN/SELTZER, on behalf of Cohen Milstein, Declaration submitted September 1, 2016; Declaration submitted October 3, 2016; Deposition on November 4, 2016; Declaration submitted on January 5, 2017.

Circuit Court Of Cook County, Illinois County Department, Chancery Division, *Amy Joseph, individually and on behalf of all others similarly situated, Benjamin Perez, individually and on behalf of all others similarly situated, Intervening Plaintiff, v. Monster Inc., a Delaware Corporation, and Best Buy Co., Inc., a Minnesota Corporation*, Case No. 2015 CH 13991, on behalf of Interveners, Declaration submitted August 8, 2016; Supplemental Declaration submitted January 22, 2018.

United States District Court, Central District of California, Eastern Division, *Jeff Looper, Michael Bright, Scott Johnson, individuals on behalf of themselves and all others similarly situated, v. FCA US LLC, f/k/a Chrysler Group LLC, a Delaware limited liability company, and DOES 1-100 inclusive*, Case No. 14-cv-00700-VAP-DTB, on behalf of Gibbs Law Group, LLP; Declaration submitted August 7, 2016; Deposition on September 29, 2016.

United States District Court, Eastern District of California, *Chad Herron, individually, on behalf of himself and all others similarly situation, v. Best Buy Stores, LP, a Virginia limited partnership*, Case No. 12-cv-02103-TLN-CKD, on behalf of Stonebarger Law, A Professional Corporation; Declaration submitted June 24, 2016; Deposition on July 29, 2016; Supplemental Declaration submitted September 8, 2016.

United States District Court for the Southern District of Florida, *Angela Sanchez-Knutson v. Ford Motor Company*, Case No. 14:61344-CIV DIMITROULEAS, on behalf of Kelley Uustal Trial Attorneys; Deposition on June 1, 2016.

United States District Court, Central District of California, *Jacqueline Dean, on behalf of herself and all others similarly situated, v. Colgate-Palmolive Co.*, Case No. 5:15-cv-00107, on behalf of Bursor & Fisher, P.A.; Declaration submitted April 29, 2016; Deposition on July 13, 2016; Reply Declaration submitted on May 2, 2017; Declaration submitted on October 2, 2016; Reply Declaration submitted on December 14, 2017.

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United States District Court, District of New Jersey, *In re: AZEK Decking Marketing & Sales Practices Litigation*, Case No. 12-cv-06627-MCA-MAH, on behalf of Seeger Weiss, LLP; Declaration submitted February 26, 2016; Declaration submitted May 16, 2016; Deposition on July 6, 2016; Reply Declaration submitted August 29, 2016.

United States District Court. Northern District of California, *In re: Nest Labs Litigation*, Case No. 5:14-cv-01363-BLF, on behalf of Bursor & Fisher, P.A.; Declaration submitted on January 22, 2016; Deposition on March 2, 2016; Reply Declaration submitted on June 3, 2016.

United States District Court, Northern District of California, *Rohini Kumar, an individual, on behalf of herself, the general public and those similarly situated, v. Salov North America Corp.; And Italfoods, Inc.*, Case No. 4:14-cv-02411-YGR, on behalf of Gutride Safier LLP; Declaration submitted on January 19, 2016; Deposition on February 24, 2016; Reply Declaration submitted on May 10, 2016; Declaration submitted on April 11, 2017, Declaration submitted on May 16, 2017.

United States District Court, Northern District of Ohio, Eastern Division, *Christopher Meta, On Behalf Of Himself And All Others Similarly Situated v. Target Corporation, et al.*, Case No. 4:14-0832-DCN, on behalf of Tycko & Zavareei, LLP, Declaration submitted January 6, 2016; Deposition on March 15, 2016; Reply Declaration submitted on March 18, 2016.

United States District Court, District of New Jersey, *Charlene Dzielak, Shelley Baker, Francis Angelone, Brian Maxwell, Jeffery Reid, Kari Parsons, Charles Beyer, Jonathan Cohen, Jennifer Schramm, and Aspasia Christy on behalf of themselves and all others similarly situated, v. Whirlpool Corporation, Lowe's Home Center, Sears Holdings Corporation, The Home Depot, Inc., Fry's Electronics, Inc., And Appliance Recycling Centers Of America, Inc.,* Case No. 12-cv-0089-KM-JBC, on behalf of Bursor & Fisher, P.A., Declaration submitted December 28, 2015; Deposition on April 22, 2016; Rebuttal Declaration submitted June 10, 2016; Responding Declaration submitted July 6, 2018; Rebuttal Declaration submitted on August 10, 2018.

United States District Court, District of New Jersey, *In re: Tropicana Orange Juice Marketing and Sales Practices Litigation,* Case No. 12-cv-7382-WJM-JBC, on behalf of Carella, Byrne, Cecchi, Olstein, Brody & Agnello, PC.; Declaration submitted on November 6, 2015; Deposition on January 28, 2016.

United States District Court, Northern District of California, *Scott Koller, an individual, on behalf of himself, the general public and those similarly situated v. Deoleo USA, Inc. and Med Foods, Inc.*, Case No. 3:14-cv-02400-RS, on behalf of Gutride Safier LLP; Declaration submitted on October 29, 2015; Deposition on December 21, 2015; Reply Declaration submitted on April 3, 2017.

United States District Court, Eastern District Of New York, *Patrick Hughes and Nafisé Nina Hodjat, individually and on behalf of others similarly situated, v. The Ester C Company; NBTY, Inc.; and Naturesmart, LLC*, Case No. 12-cv-00041-JFB-ETB, on behalf of Reese LLP and WhatleyKallas LLP; Declaration submitted October 22, 2015; Deposition on December 1, 2015; Reply Declaration submitted on January 28, 2016; Surrebuttal Declaration submitted on April 20, 2016; oral testimony and cross examination on September 20, 2016.

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United States District Court, District Of Connecticut, *Glen Grayson, and Doreen Mazzanti, individually and on behalf of themselves and all others similarly situated, v. General Electric Company*, Case No. 3:13-cv-01799-WWE, on behalf of Izard Nobel LLP; Declaration submitted October 15, 2015; Deposition on November 17, 2015; Rebuttal Declaration submitted March 23, 2016.

United States District Court, District of New Jersey, *Lynne Avram, on behalf of herself and all others similarly situated, v. Samsung Electronics America Inc., and Lowe's Home Centers, Inc.*, Case No. 11-cv-6973-KM-MCA, on behalf of Faruqi & Faruqi LLP; Declaration filed July 15, 2015; Deposition September 29, 2015.

United States District Court, District of Connecticut, *Heidi Langan, on behalf of herself and all others similarly situated, v. Johnson & Johnson Consumer Companies, Inc.*, Case No. 3:13-cv-01471-RNC, on behalf of Izard Nobel LLP; Declaration filed June 23, 2015; Deposition on July 21, 2015; Reply Declaration filed October 15, 2015.

United States District Court, Eastern District of California, *Yesenia Melgar, on behalf of herself and all others similarly situated, v. Zicam LLC, and Matrixx Initiatives, Inc.*, Case No. 2:14-cv-00160-MCE-AC, on behalf of Bursor & Fisher, PA; Declaration filed June 8, 2015.

United States District Court, Central District of California, Eastern Division-Riverside *Michael J. Otto, individually, and on behalf of other members of the general public similarly situated, v. Abbott Laboratories, Inc.*, Case No. 12-01411-SVW(DTBx), on behalf of Baron & Budd; Declaration filed May 25, 2015; Deposition on June 2, 2015; Supplemental Declaration filed July 6, 2015.

United States District Court, Central District of California, *Russell Minoru Ono, individually and on behalf of others similarly situated, v. Head Racquet Sports USA, a corp. and Head USA Inc.*, Case No. 13-04222-FMO, on behalf of Baron & Budd; Declaration filed April 24, 2015, Deposition on June 30, 2015; Reply Declaration filed July 2, 2015.

United States District Court, Southern District of Florida, *Vanessa Lombardo, on behalf of herself and all others similarly situated, v. Johnson & Johnson Consumer Companies and Neutrogena Corporation*, Case No. 13-60536-SCOLA, on behalf of Morgan & Morgan; Declaration filed March 31, 2015.

United States District Court, Eastern District of New York, *D. Joseph Kurtz, individually and on behalf all others similarly situated, v. Kimberly-Clark Corporation and Costco Corporation*, Case No. 14-01142-JBW, on behalf of Robbins Geller Rudman & Dowd LLP; Declaration filed February 27, 2015; Rebuttal Declaration filed March 27, 2015.

United States District Court, Eastern District of New York, *Anthony Belfiore, on behalf of himself and all others similarly situated, v. Procter & Gamble*, Case No. 14-04090-JBR, on behalf of Wolf Popper LLP; Declaration filed February 27, 2015; Rebuttal Declaration filed April 30, 2015.

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United States District Court, Northern District of California, *Patrick Hendricks, individually and on behalf of all others similarly situated, v. StarKist Co.*, Case No. 13-0729-YGR, on behalf of Bursor & Fisher, PA; Declaration filed January 20, 2015; Deposition on February 10, 2015; Reply Declaration filed April 7, 2015.

United States District Court, Northern District of California, San Francisco Division, *Scott Miller and Steve Leyton, individually and on behalf themselves, the general public and those similarly situated v. Ghirardelli Chocolate Company*, Case No. 12-04936-LB, on behalf of Gutride Safier LLP, Declaration filed January 8, 2015; Reply Declaration filed February 5, 2015.

United States Bankruptcy Court, Eastern District of New York, *In re: Kangadis Food Inc., d/b/a The Gourmet Factory, Debtor*, Case No. 14-72649-REG, on behalf of Bursor & Fisher, PA; Declaration filed August 5th, 2014; Oral testimony on November 24, 2014.

United States District Court, Southern District of New York, *Joseph Ebin and Yeruchum Jenkins, individually and on behalf of all others similarly situated v. Kangadis Family Management LLC, Aristidia Kangadis a/k/a "Mr. Aris," Andromahi Kangadis a/k/a "Mrs. Mahi," and Themis Kangadis*, Case No. 14-cv-1324-JSR, on behalf of Bursor & Fisher, PA; Declaration filed August 5, 2014; Deposition on October 9, 2014.

United States District Court, Northern District of California, San Francisco Division, *Erin Allen, on behalf of herself and all others similarly situated, v. Con Agra Foods, Inc.*, Case No. 13-cv-01279-VC, on behalf of Hagens Berman Sobol Shapiro LLP and The Eureka Law Firm; Declaration submitted August 11, 2014; Deposition on September 30, 2014; Declaration submitted July 9, 2018.

United States District Court, Eastern District of California, *Kyle Dei Rossi and Mark Linthicum, on behalf of themselves and those similarly situated, v. Whirlpool Corporation*, Case No. 12-cv-00125-TLN-CKD, on behalf of Bursor & Fisher, P.A.; Declaration filed July 31, 2014, Deposition on August 20, 2014.

United States District Court, Northern District of Illinois, Eastern Division, *In re: Southwest Airlines Voucher Litigation.*, Case No. 11-cv-8176, Hon. Matthew Kennelly, on behalf of Siprut PC; Declaration filed June 4, 2014; Oral testimony and cross examination on June 16, 2014.

United States District Court, Central District of California, Western Division, *In re: ConAgra Foods, Inc.*, Case No. 11-cv-05379-MMM, MDL No. 2291, on behalf of Milberg LLP and Grant & Eisenhofer, P.A.; Declaration filed May 5, 2014; Deposition on May 23, 2014; Declaration filed June 30, 2014; Declaration filed September 8, 2014; Deposition on September 16, 2014, Declaration filed October 27, 2014.

United States District Court, Southern District of New York, *In re: Scotts EZ Seed Litigation*, Case No. 12-cv-4727-VB, on behalf of Bursor & Fisher, PA; Declaration filed March 31, 2014; Deposition on May 21, 2014; Declaration filed on January 8, 2016; Deposition on February 10, 2016; Reply Declaration submitted June 30, 2016; Declaration submitted September 1, 2016; Declaration submitted on October 20, 2016.

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United States District Court, Central District of California, *Julie Fagan, Michael Fagan, Melissa Pennalatore, Amy Sapeika and Shelley Trinchero, individually and on behalf of all others similarly situated v. Neutrogena Corporation*, Case No. 13-cv-01316-SVW, on behalf of Izard Nobel LLP; Declaration filed March 21, 2014; Deposition on April 3, 2014; Supplemental Declaration filed August 4, 2014; Deposition on August 13, 2014; Declaration filed September 9, 2014.

United States District Court, Central District of California, *Enzo Forcellati and Lisa Roemmich, individually and on behalf of all others similarly situated v. Hyland's Inc., Standard Homeopathic Laboratories, Inc. and Standard Homeopathic Company*, Case No. 12-cv-01983-GHK, on behalf of Faruqi and Faruqi; Declaration filed December 13, 2013; Deposition on February 27, 2014.

United States District Court, Southern District of Florida, *Adam Karhu, on behalf of himself and all others similarly situated, v. Vital Pharmaceuticals, Inc., d/b/a VPX Sports*, Case No. 13-cv-60768-JIC, on behalf of Thornton, Davis, & Fein, P.A., Declaration filed December 13, 2013; Declaration filed January 6, 2014; Declaration filed March 31, 2014.

Trial Court of Massachusetts, District of Edgartown, *Schepici v. JetBlue Airways Corp.,* on behalf of plaintiff; Mediation on December 4, 2013.

Superior Court of California, County of Alameda, *In re: Cellphone Termination Fee Cases, Ramzy Ayyad, et al, v. Sprint Spectrum, L.P.,* JCCP No. 4332, Case No. RG03-121510, on behalf of the Executive Committee; Declaration filed September 18, 2013.

United States District Court, Northern District of California, *Maria Torres, Gabriel Rojas, and Ian Kerner, individually and on behalf of all others similarly situated v. JC Penney Corporation, Inc.; and JC Penney Company, Inc.,*, Case No. cv-12-01105-RS, on behalf of Bramson, Plutzik, Mahler and Birkhaeuser; Declaration filed September 13, 2013; Deposition on October 2, 2013.

United States District Court, Southern District of New York, *Joseph Ebin and Yeruchum Jenkins, individually and on behalf of all others similarly situated v. Kangadis Foods Inc*, Case No. 13-cv-02311-JSR, on behalf of Bursor & Fisher, PA; Declaration filed August 26, 2013; Deposition on October 21, 2013.

United States District Court, Northern District of California, *Desiree Moore, on behalf of themselves, the general public, and all those similarly situated, v. Verizon Communications*, Case No. 4:09-cv-01823-SBA, on behalf of David Schachman and Associates PC, Jacobs Kolton Chtd., and Keller Grover, LLP; Declaration filed June 24, 2013.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on March 1, 2013.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on February 20, 2013.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on February 19, 2013.

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American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on February 13, 2013.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on February 7, 2013.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on February 4, 2013.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on January 24, 2013.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on December 12, 2012.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on December 10, 2012.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant; Oral testimony and cross examination on November 28, 2012.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant, Declarations filed October 4, 2012 and November 5, 2012; Oral testimony and cross examination on November 27, 2012.

American Arbitration Association, *[Redacted for public inspection]*, on behalf of Claimant, Declaration filed April 16, 2012; Oral testimony and cross examination on May 11, 2012.

United States District Court, District of Massachusetts, *Marcy Cruz v. Justin Kagan, Arthur Hegarty, Ronald Teachman, and the City of New Bedford*, Case No. 1:09-cv-11793-RGS, on behalf of Marcy Cruz, Expert Report filed February 28, 2011; Oral testimony and cross examination on December 1, 2011.

United States District Court, Southern District of New York, *Bursor & Fisher P.A., v. Federal Communications Commission*, Case No. 1:11-cv-05457-LAK, on behalf of Bursor & Fisher P.A., Declaration filed August 17, 2011.

United States District Court, District of New Jersey, *In Re: Sprint Premium Data Plan Marketing and Sales Practices Litigation,* Master Case No. 10-6334 (SDW) MDL No. 2228**,** on behalf of Thornton, Davis, & Fein, P.A., Declaration filed August 11, 2011.

United States District Court, Northern District of California, *Patrick Hendricks, on behalf of himself and all others similarly situated, v. AT&T Mobility LLC,* Case No. C11-00409, on behalf of Bursor & Fisher, P.A., Declaration filed August 7, 2011.

Federal Communications Commission, *In the Matter of Applications of AT&T Inc. & Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, WT Docket No. 11-65, on behalf of Butch Watson, Declaration filed June 20, 2011.

ECONOMICS AND
TECHNOLOGY, INC.

Statement of Qualifications – Colin B. Weir

California Public Utilities Commission, *Pacific Bell Telephone Company d/b/a AT&T California (U1001C) Complainant, vs. O1 Communication, Inc. (U 6065 C), Defendant*, Case No. C.08-03-001, on behalf of the O1 Communications, Inc., Reply Testimony filed November 6, 2009; Oral testimony and cross examination on November 16, 2009.

Superior Court of California, County of Alameda, *James Thomas, on behalf of themselves, the general public, and all those similarly situated, v. Global Vision Products, Inc., Anthony Imbriolo, Derrike Cope, David L. Gordon, Powertel Technologies, Inc., Craig Dix, Henry Edelson and Robert Debenedictis,* Case No. RG03-091195, on behalf of the Law Offices Of Scott A. Bursor, Oral testimony and cross examination on November 9, 2009.

United States District Court, District of New Jersey, *Judy Larson, Barry Hall, Joe Milliron, Tessie Robb, and Willie Davis, individually and on behalf of all others similarly situated, v. AT&T Mobility LLC f/k/a Cingular Wireless LLC and Sprint Nextel Corporation and Sprint Spectrum L.P. d/b/a Sprint Nextel and Nextel Finance Company, Civ. Act. No. 07-5325 (JLL)*, on behalf of PinilisHalpern, LLP and Law Offices of Scott A. Bursor, Declaration filed *under seal* October 19, 2009.

California Public Utilities Commission, *Pacific Bell Telephone Company d/b/a AT&T California (U1001C) Complainant, vs. Pac-West Telecomm, Inc. (U 5266 C), Defendant*, Case No. C.08-09-017, on behalf of the Pac-West Telecomm, Inc., Rebuttal Testimony filed May 1, 2009.

Illinois Commerce Commission, Illinois Bell Telephone Company Annual Rate Filing for Non-Competitive Services Under an Alternative Form of Regulation, Ill. C. C. Docket No. 08-0249, on behalf of the People of the State of Illinois, Declaration filed May 2, 2008.

Federal Communications Commission, Qwest Petition for Forbearance Under 47 U.S.C. §160(c) From Title II and *Computer Inquiry Rules* with Respect to Broadband Services, Petition of AT&T Inc, For Forbearance Under 47 U.S.C. §160(c) From Title II and *Computer Inquiry Rules* with Respect to Broadband Services, Petition of BellSouth Corporation For Forbearance Under 47 U.S.C. §160(c) From Title II and *Computer Inquiry Rules* with Respect to Broadband Services, Petition of the Embarq Local Operating Companies for Forbearance Under 47 U.S.C. §160(c) From Application of *Computer Inquiry* and certain Title II Common Carriage Requirements; WC Docket Nos. 06-125 and 06-147, on behalf of the AdHoc Telecommunications Users Committee, Declaration filed October 9, 2007.

Superior Court of California, County of Alameda, *James Thomas, on behalf of themselves, the general public, and all those similarly situated, v. Global Vision Products, Inc., Anthony Imbriolo, Derrike Cope, David L. Gordon, Powertel Technologies, Inc., Craig Dix, Henry Edelson and Robert Debenedictis,* Case No. RG03-091195, on behalf of the Law Offices Of Scott A. Bursor, Declaration filed January 5, 2007; Deposition on November 13, 2007; Oral testimony and cross-examination on December 19, 2007; Oral testimony on January 9, 2008.

Mr. Weir has served as a consultative expert in numerous proceedings that did not result in testimony, and has contributed research and analysis to numerous additional publications and testimony at the state, federal, and international levels.

15

ECONOMICS AND
TECHNOLOGY, INC.

Exhibit 2

Documents Reviewed

- Class Action Complaint, filed December 4, 2017

- 47 U.S. Code 227

- November 27, 2018 Declaration of Randall Snyder

- January 11, 2019 Report of Margaret Daley (and associated exhibits and workpapers)

- January 24, 2019 Deposition of Margaret Daley

- December 28, 2018 Deposition of Colin B. Weir

- December 23, 2018 Deposition of Randall Snyder

- Defendant's call detail records

- Defendant's wrong number account data

- http://www.stata.com/products/

- *In re: Cellphone Termination Fee Cases*, *Ayyad, et al., v. Sprint Spectrum, L.P.*, JCCP No. 4332, Case No. RG03-121510

- *In re: ConAgra Foods Inc.,* 90 F. Supp. 3d 919, (C.D. Cal. February 23, 2015)

EXHIBIT 6

12/17/2018

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(/)

INDUSTRY

TLOxp for Law Enforcement

Pinpoint actionable and accurate investigative resources with the power of TransUnion

Start a free trial

The proven customized search and locate tool for law enforcement agents

Built on a foundation of hundreds of millions of records, the elite search and locate technology in TransUnion's TLOxp® solution and advanced linking algorithms produce actionable data through a customized, user–friendly interface in a matter of seconds. Fragments of data can turn into concrete information as you dig deeper into leads you've identified. This TransUnion solution aggregates data from over 10,000 sources to create the most robust public and proprietary records database, delivering instant access to fresh and pertinent multi-jurisdictional information about people, businesses and assets.

Industry's *most comprehensive 360-degree view* into a subject's identity, assets and relationships

Equips you with vital information so you can:

- Uncover multi-jurisdictional associations between people, businesses and assets
- Identify non-obvious relationships with unique public record data
- Leverage advanced analytics with TransUnion and customer supplied data

Speed and efficiency are *paramount* when the clock is ticking.

TLOxp positions you for optimum, timely and cost-effective investigative workflow:

- Interface designed specifically for law enforcement needs
- 60 variables to link & rank person-address associations
- Best in class phone data including up to date carrier information

Did you know?

Over 90% of investigators from a TransUnion survey agree or strongly agree that TLOxp makes their jobs easier.

The TLOxp database suppresses information on people 17 years of age and younger.

12/17/2018

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TLOXP PROVIDES ACCESS TO:

- Data on over 95% of the U.S. population

- 350 million Social Security numbers

- Over 225 million employment records

- 4 billion phone records

- 4 billion address records

- 90 million adult Millennials age 18–36*

- 50 million people with so-called "thin files" who don't have traditional credit reports

RESOURCES

Asset Sheet
Right Party Contact
(http://app.e.transunion.com/e/er?s=1834359157&lid=1295&elq=recipientid)

Asset Sheet
TLOxp for Law Enforcement

(/resources/tlo/doc/industry/resources/industry-law-enforcement-as.pdf)

SOLUTIONS FOR LAW ENFORCEMENT

Featured

4 of 7

Batch Processing and API

Our data solutions can increase productivity and enhance user performance to save you time and money (/batch-and-api-solutions)

▲

Pricing

Choose from three pricing structures designed to meet your search volume and organization's needs (/pricing)

▲

Relationship Report

Save investigation time by running one report connecting multiple people. (/relationship)

▲

Searches and Reports

Instantly access a 360º profile of people, businesses and locations (/searches-and-reports)

INSIGHTS AND EVENTS
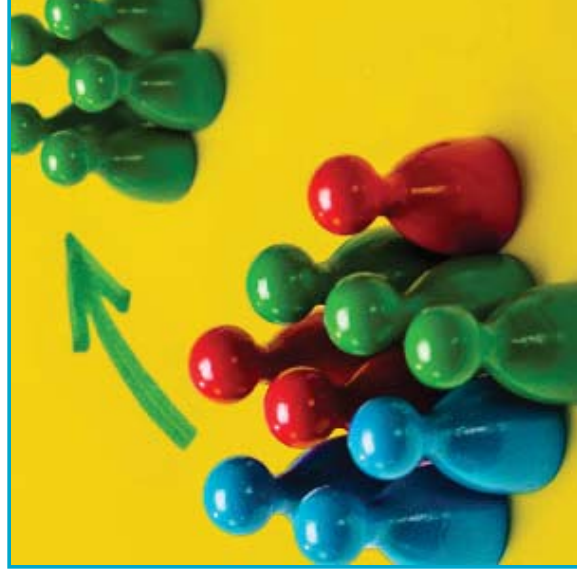
BLOG

Improve Efficiency and Reduce
Risk with Inventory
Segmentation

READ NOW ▸

(https://www.transunion.com/blog/improve-
efficiency-and-reduce-risk-with-
inventory-segmentation)

BLOG POST

Three Ways Data-Driven Law
Firms Keep Winning

LEARN MORE ▸

(/blog/three-ways-data-driven-law-
firms-keep-winning)

BLOG POST

Managing Risk – and Protecting Your Bottom Line – With Smarter Segmentation

READ NOW ▸

(https://www.transunion.com/blog/managing-risk-and-protecting-your-bottom-line-with-smarter-segmentation)

VIDEO

Discover how TLOxp for Law
Enforcement can help solve
cases faster

WATCH NOW ▶

(/videos/tloxp-for-law-enforcement)

View All (/INSIGHTS-EVENTS)

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12/17/2018

First Name:*

Last Name:*

Email:*

Phone:*

Company:*

Title:*

State:* ▶

Industry:* ▶

Number of employees:* ▶

12/17/2018

How can we help you?:*

Current TLOxp customer

REQUEST MORE INFORMATION

About Us

Who uses TLOxp

Get to know TLOxp

Contact Us

f _(https://www.facebook.com/TransUnionTLOxp).

_(https://twitter.com/TLO_xp).

_(https://www.youtube.com/channel/UCP332SfcUVdNK7_HVwO2MbA).

12/17/2018

(https://www.linkedin.com/company/tloxp?trk=nmp_rec_act_company_photo).

g+ (https://plus.google.com/+TU-TLOxp/posts).

(http://blog.transunion.com/).

User Login (https://tloxp.tlo.com/login)	Privacy (/privacy)	Terms & Conditions (/terms-conditions)	Tax FAQ (/faq-tax)	Sitemap (/sitemap)	Signup (/signup)

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EXHIBIT 7
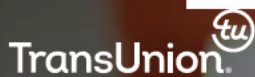
TransUnion

Powerful technology and data to help improve your TCPA compliance and contact strategy

TransUnion helps make compliance with the Telephone Consumer Protection Act (TCPA) and verification of your contact data easier.

With real-time* access to carrier data, your organization can quickly confirm the line type and verify ownership of a given phone number.

Right Data. Better Results. Right Now.

Through more accurate information and solutions that help you better navigate evolving phone technologies, you can also enhance your customer contact strategy and mitigate costly fines resulting from non-compliance.

Our batch solutions can simplify your compliance efforts while helping streamline your operational workflow. What's more, Batch Monitoring allows for daily updates to track status changes, including whether a number has been ported to a major carrier, helping you avoid regulatory violations. Available carriers include Verizon, T-Mobile, Sprint and AT&T**.

LEARN MORE

For more information and to schedule a demo, visit tlo.com/TCPA-phone-and-contact-data-verification or call 800-856-5599.

KEY BENEFITS

- Reduce and limit calls to canceled or suspended numbers
- Verify number ownership of the consenting party
- Track ported numbers
- Validate phone type
- Improve the accuracy of customer contact details

AVAILABLE CARRIERS INCLUDE VERIZON, T-MOBILE, SPRINT AND AT&T**

TransUnion equips you with powerful information to help improve the results of your contact strategy

Non-compliance with TCPA laws can result in penalties ranging from $500 – $1,500 per violation, which includes individual calls and texts messages.[1] Consent is required to send a text message or use an autodialer to make contact with a mobile phone.[2]

Access the right data to drive better results with intuitive TCPA and contact data solutions.

TCPA Phone Verification

This product provides verification of phone ownership details direct from carrier billing data.

INPUTS

- Correlation ID: *An identifier for each record in the file, and returned in the output*
- Phone number
- First and last name
- Address
- Email address
- Last successful contact date

OUTPUTS

- Correlation ID
- Service type: *Wireless, landline*
- Account status:
  - → 10 = Active
  - → 9 = Suspended
  - → 0 = Cancelled
- Verification score: *Probability of phone ownership by provided name*

Contact Data Verification

This product delivers additional information about the ownership of a phone number to our customers looking to verify their customer data.

INPUTS

- Correlation ID: *An identifier for each record in the file, and returned in the output*
- Phone number
- First and last name
- Address
- Email address
- Last successful contact date

OUTPUTS

- First and last name score
- Address score
- Email address score
- Service type & provider: *Wireless, landline*
- Account type: *Pre-paid or post-paid*
- Account status: *Active, suspended, cancelled*
- Primary owner verification
- Last reassignment date
- Verification score: *Probability of provided name owning phone*

LEARN MORE

For more information and to schedule a demo,
visit **www.tlo.com/TCPA-phone-and-contact-data-verification** or call **800-856-5599.**

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EXHIBIT 8

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(/)

SOLUTION

TCPA Phone and Contact Data Verification

Improve your TCPA compliance and contact strategy with powerful technology and data

REQUEST MORE INFORMATION

Effectively verifying contact data and remaining compliant with the Telephone Consumer Protection Act (TCPA) is vital to mitigating costly fines that can severely impact your business and reputation. To optimize your customer contact strategies, TransUnion offers real-time access to carrier data allowing you to quickly confirm the line type and ownership of a given phone number.
Implementing our batch monitoring solutions can streamline your compliance efforts and overall operational flow. Plus, you can receive daily updates that allow you to track status changes like whether a number has been ported to a major carrier – again helping you avoid regulatory violations.

TCPA Phone Verification provides verification of phone ownership details direct from carrier billing data.

Using inputs, such as correlation ID, phone number, first and last names, etc., you can receive information as to service type, wireless or landline, account status and a verification score with the probability of ownership by the name provided.

Contact Data Verification delivers deeper information regarding ownership of a phone number.

Again, with the inputs you provide, you can receive detailed information regarding name, address, service type, provider, pre or post-paid account, account status, verification score of probability of ownership and more.

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PRODUCT HIGHLIGHTS:

- **Reduce and limit calls to canceled or suspended numbers**

- **Verify number ownership of the consenting party**

- **Track ported numbers**

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phone type

⊘ Improve the accuracy of customer contact details

RESOURCES

Asset Sheet

Learn more about how we can help make compliance with the Telephone Consumer Protection Act (TCPA) and verification of your contact data easier.
(/resources/tlo/doc/solutions/resources/solution-phone-verification-and-contact-data-verification-asset-sheet.pdf)

CONTACT US

* Required field

First Name:*

Last Name:*

Email:*

Phone:*

Company:*

Title:*

State:*   ▾

Industry:*   ▾

Number of employees:*

TransUnion TLOxp.

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(/)

Current TLOxp customer ☐

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▶ (https://www.youtube.com/channel/UCP332SfcUVdNK7_HVwO2MbA)

in (https://www.linkedin.com/company/tloxp?trk=nmp_rec_act_company_photo)   (http://blog.transu

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